

Staff Report, August 26, 2004

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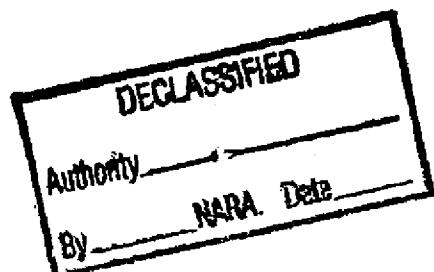
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PART I: THE FOUR FLIGHTS

**American Airlines Flight 11
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(Note to reader: All times indicated are Eastern Daylight Time unless otherwise specified).

1.1 AMERICAN AIRLINES FLIGHT 11

Colgan Air Flight 5930

The Flight 11 story begins on the morning of September 11, 2001, in Portland, Maine, aboard Colgan Air Flight 5930 headed for Logan International Airport.¹ Two of the Flight 11 hijackers, Mohamed Atta and Abdul Aziz al Omari, were aboard the flight on their way to Boston.

Hijacker Arrival at the Airport and Check-in. At 5:40 A.M. on September 11, 2001, a car rented by Mohamed Atta in Boston on September 9 entered the Portland International Jetport parking facility.²

5:43 A.M. Atta and Omari checked in at the US Airways counter at the Portland Jetport. Atta checked two bags, Omari none.³ The agent who checked in the two hijackers recalled that when he handed Atta his boarding pass, Atta asked why he was not given a boarding pass for his connecting flight on American Airlines from Boston to Los Angeles. The agent explained to Atta that he would have to check in with American Airlines in Boston to obtain the boarding pass for the second leg of his itinerary. The agent remembered that Atta clenched his jaw and looked as though he was about to get angry. Atta stated that he was assured he would have "one-step check-in." The agent told them that they had better get going if they were to make their flight. He said that Atta looked as if he were about to say something in anger but turned to leave. Both Atta and Omari departed for the security checkpoint.⁴

Hijacker Prescreening Selectee Status. When he checked in at the Portland airport, Atta was randomly selected for additional security scrutiny by the Computer Assisted Passenger Prescreening System (CAPPS). The Federal Aviation Administration (FAA), required air carriers to apply the system to their passengers to identify those who might be a security risk.⁵ FAA rules required that the checked bags of CAPPS selectees be screened for explosives, or their bags held off the airplane until the passenger boarded.⁶ Because US Airways at Portland Jetport did not have explosives detection screening equipment for checked bags at that time, Atta's luggage was subject to the matching procedure.⁷ The application of this procedure was designed to stop a nonsuicide bomber—one who might place a bomb in a bag and then leave the airport. At this time,

the FAA believed that such bombers were among the greatest threats to civil aviation security.

Checkpoint Security Screening. At 5:45 A.M., Atta and Omari arrived at the sole security checkpoint at the Portland International Jetport.⁸ This checkpoint was under the custodial responsibility of Delta Airlines, which contracted for security screening services with Globe Aviation Services. The checkpoint had two lanes, each outfitted with a walk-through metal detector and X-ray equipment to help detect weapons.⁹

The checkpoint videotape was seized as evidence by the FBI and reviewed by the Commission.¹⁰ The videotape showed that Atta and Omari entered the walk through metal detector at 5:45:03 A.M. A screener was stationed at the device to monitor the screening. Though not conclusive, the video suggests that neither of the subjects set off the metal detector. Both Atta and Omari proceeded from the magnetometer immediately to the X-ray belt. Atta picked up a black shoulder bag. Omari claimed a similar bag, and also a smaller black case that he held in both hands. The item cannot be identified but resembled a camera or camcorder case. Neither of the bags was physically examined by a screener, a step that is required if the X-ray monitor displays a suspicious item. Both of the subjects passed out of view of the video camera at 5:45:15 A.M.

Hijacker Boarding. Seating aboard the Colgan flight was open rather than assigned.¹¹ Eight passengers boarded the flight, including Atta and Omari.¹² The flight crew included a pilot and a first officer who also served as the flight attendant. Atta and Omari were the last to board the aircraft and sat in the last row of the plane—row 9.¹³

The Flight. Colgan Air Flight 5930 was a Beechcraft 1900—a 19-seat regional airliner. It departed from Gate 11 on time at 6:00 A.M., arriving at Gate B9 (A) at Boston Logan International Airport at approximately 6:45 A.M., one hour before the scheduled departure of Flight 11.¹⁴

Purpose of the Flight. No physical, documentary, or analytical evidence found either by the Commission or by law enforcement agencies provides a clear reason why Atta and Omari drove to Portland from Boston on the morning of September 10 only to return to Logan International Airport on Flight 5930 on the morning of September 11.¹⁵

The most plausible theory is that the hijackers chose to fly into Boston to avoid suspicion that might have been aroused if they had arrived at Logan at approximately the same time as eight other young Middle Eastern males to check in for Flight 11 and Flight 175. Such an intent might also explain why Atta appeared to be so upset that he had to check in again in Boston to get a boarding pass for Flight 11.

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It is also possible that they traveled to Portland to preserve operational security. If the hijackers' plot had been discovered by U.S. intelligence or law enforcement, or by the U.S. aviation security system, the two terrorists would be apprehended during their check-in at the Portland airport. That outcome would have been preferable to being stopped at Logan Airport, where other members of Atta's hijack team were also checking in, and where conspirators intending to hijack Flight 175 were assembling at the same time.¹⁶

Telephone records show that a phone call was placed from a pay phone in the gate area from which Flight 175 departed to Atta's cell phone at 6:52 A.M.¹⁷ This call strongly suggests that the two hijacking teams engaged in tactical communications, such as situational reporting and possible "go" or "no go" determinations, at the last moment.

The Massport Aviation Director told the Commission that Portland was the nearest airport to Boston with a flight that would have arrived at Logan in time for the passengers to transfer to Flight 11.¹⁸

We also considered the possibility that Atta, the leader of the 9/11 hijackers, might have believed that he and Omari were more likely to successfully pass through checkpoint screening at a smaller airport, carrying items such as Mace or pepper spray, than they were at Logan Airport.

However, two considerations would have made this a faulty assumption. First, public sources would not have supported the notion that smaller airports had more porous checkpoints. For instance, in the winter and spring of 2001, a Fox news special investigation publicly described serious shortcomings in the detection capabilities at Logan Airport's security screening checkpoints, including the ease with which knives could be carried through checkpoints.¹⁹ Second, Atta and Omari were required to go through another security checkpoint when they arrived at Logan in order to enter the terminal from which Flight 11 departed.

We believe that Atta's apparent anger about not receiving his boarding pass for Flight 11 when he checked in for Flight 5930 is a strong indication that he hoped to enter the system and obtain his final boarding pass along with Omari at Portland, separately from the other hijackers. The hijackers checked-in and went through the checkpoints (at least in the case of the Flight 77 hijackers who were videotaped), in pairs or by themselves. This provides additional evidence that the hijackers did not want to make themselves conspicuous by congregating.

American Airlines Flight 11

Hijackers. Mohamed Atta (pilot); Abdul Aziz al Omari; Waleed al Shehri; Wail al Shehri; Satam al Suqami.

Hijacker Weapon Purchases. Atta purchased two Victorinox Swiss Army knives at the Zurich Airport on July 8, 2001, and a Leatherman multi-tool in Boynton Beach, Florida, on August 30, 2001.²⁰

Hijacker Arrival at Airport and Check-in. At 6:45 A.M., Atta and Omari arrived at Boston Logan airport, Terminal B, Gate B9A. Atta and Omari still had their carry-on shoulder bags. Atta's two checked bags were unloaded from the Colgan Air flight. The luggage tags indicated that they should be transferred to American Airlines Flight 11 from Boston to Los Angeles International Airport. FAA security rules did not require additional screening or special security handling of Atta's luggage.

After exiting the aircraft, Atta and Omari crossed a parking lot that separated their arrival and departure terminals. They were observed asking for directions.²¹

Also at 6:45 A.M., Wail al Shehri, Waleed al Shehri, and Satam al Suqami arrived at Logan Airport and parked their rental car at the airport's central parking facility.²²

Hijacker Prescreening. According to ticket records, Wail al Shehri, Waleed al Shehri, and Satam al Suqami were selected by CAPPS.²³ Waleed al Shehri did not check a bag. The others checked in one each.²⁴ Their checked luggage was screened by an explosives detection system and loaded aboard the aircraft.²⁵ Under FAA security rules in effect at the time, the hijackers' designation as "selectees" did not require that they undergo any screening of their person or carry-on bags beyond what was required of passengers not selected by CAPPS.²⁶

Checkpoint Security Screening. Because the airport's security checkpoints [REDACTED] were not monitored by video surveillance equipment at that time, no conclusive evidence exists regarding when and how the Flight 11 hijackers passed through checkpoint screening. To reach their departure gate after checking in, all five hijackers would have been required to pass through one of two checkpoints, both of which were operated by Globe Aviation Services under a contract with American Airlines.²⁷ The smaller checkpoint opened at 7:15 A.M. and was used mainly for overflow traffic from the other. We believe it most likely that the hijackers would have chosen to pass through the busier checkpoint in the hopes of being less conspicuous.

At the checkpoint, each of the individual's carry-on belongings would have been screened by an X-ray machine. The purpose of this screening was to identify and confiscate weapons and other items prohibited from being carried onto a commercial flight.²⁸ Also, the passenger would pass through a walk-through metal detector calibrated at that time to detect items with at least the metal content of a small-caliber handgun. If any one of the hijackers triggered the walk-through magnetometer, he would have been screened with a handheld metal detector—a procedure requiring the screener to identify the item or items that caused the alarm. Any items found that were prohibited or restricted under the checkpoint operating rules and guidelines would not be allowed past the checkpoint. The checkpoint supervisors did not recall the hijackers or report anything suspicious regarding their screening.²⁹

6:52 A.M. Atta received a phone call from a pay phone in Terminal C at Logan International Airport—the terminal from which Flight 175 was due to depart.³⁰

Hijacker Boarding. At approximately 7:31 A.M., Wail al Shehri and Waleed al Shehri boarded. Atta and Omari followed at approximately 7:39 A.M. Suqami boarded a minute later.³¹

Flight Profile. Flight 11 provided daily, nonstop service from Boston's Logan International Airport (BOS) to Los Angeles International Airport (LAX). On September 11, it was scheduled for a 7:45 A.M. departure.³² The aircraft was a Boeing 767, tail number N334AA.³³

Captain John Ogonowski and First Officer Thomas McGuinness piloted the plane. It carried its full capacity of nine flight attendants:

- Karen Martin (Position 1), assigned to the forward left jumpseat (1L), located between the first-class cabin and the cockpit entrance;
- Kathleen Nicosia (Position 2), assigned to the left aft jumpseat (3L) at the back of the aircraft;
- Betty Ong (Position 3), assigned to the right aft jumpseat (3R) at the back of the aircraft behind the coach section;
- Dianne Snyder (Position 4), assigned to the mid-galley jumpseat (2R);
- Barbara "Bobbi" Aretegui (Position 5), assigned to the forward right jumpseat (1R Center), which was in the forward galley between the cockpit and the first-class cabin;
- Jeffrey Collman (Position 6), assigned to the middle left jumpseat (2L) located in the middle galley within the main cabin;
- Sara Low (Position 7), assigned to the middle right jumpseat (2R) in the middle galley within the main cabin;
- Jean Roger (Position 8), assigned to the forward left jumpseat (1L Center) in the forward galley; and
- Madeline "Amy" Sweeney (Position 9), assigned to the left aft jumpseat (3L) at the back of the aircraft behind the coach section.³⁴

The aircraft had a capacity of 158 passengers: 9 seats in first class, 30 in business class, and 119 in coach.³⁵ On September 11, the flight carried 81 passengers (including the 5 terrorists) with 2 pilots and 9 flight attendants, for a total of 92 people on board.

All 9 of the first-class seats were occupied, 2 of them by hijackers Waleed al Shehri (2B) and Wail al Shehri (2A). Nineteen of the 30 seats in business class were occupied (49 percent), 3 by hijackers Atta (8D), Omari (8G), and Suqami (10B).³⁶ Fifty-three of the 119 coach seats were occupied (44 percent), none of them by hijackers.

The percentage of seats occupied on the aircraft—also known as the "load factor"—on September 11, 2001, was 51 percent, compared to an average load factor for Flight 11 of almost 39 percent on Tuesdays over the three months preceding 9/11.³⁷ Thus, the load

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factor on this flight was somewhat above the norm. The Commission found no ticketing, passenger occupancy, or financial evidence to indicate that the hijackers purchased additional seats beyond the ones they actually used in order to limit the number of passengers they would need to control during the operation.³⁸

As noted above, all of the hijackers were accounted for in checking in and boarding the flight. American's records do not reflect the use of a cockpit jump seat by anyone other than the Flight 11 pilot and first officer.³⁹

Under American Airline's policy in effect on 9/11, every crew member, including each of the flight attendants, had a key to the cockpit. The airline's Flight Standards Manual instructed the crews to guard their keys carefully.⁴⁰ Rules implemented in the 1960s required that air crews keep the cockpit door closed and locked during flight,⁴¹ though the requirement was not always observed by flight crews or enforced by the FAA.

The American Airlines dispatcher in charge of Flight 11 said that all aspects of preflight preparation were routine. She reported having no preflight communications with the pilot or aircraft because no problems or issues in need of resolution arose.⁴²

Flight 11 was loaded with 76,400 pounds of fuel, above the average fuel load of 70,000 pounds.⁴³

The Flight. At 7:40 A.M., Flight 11 pushed back from Gate 32 and taxied to its departure runway. It took off at 7:59 A.M.⁴⁴

Shortly before 8:14 A.M., Flight 11 reached an altitude of 26,000 feet, just shy of its initial cruising altitude of 29,000 feet. Up to this point, all communications and the flight's appearance to air traffic controllers were normal.⁴⁵ While cabin service generally did not start until after the cruising altitude was reached, some pilots under the proper circumstances would turn off the "Fasten Seatbelt" signs earlier, thereby permitting the flight attendants to begin cabin service. It is not known if such a head start was allowed on this flight, but it is very likely that flight attendants would at least have begun preparations for service.⁴⁶

FAA air traffic controller Peter Zalewski, stationed at the Boston Air Route Traffic Control Center (Boston Center) radioed directional instructions: "American 11 turn twenty degrees right." Flight 11 replied: "twenty right American 11." This was the last routine communication received from the flight. Seconds later, air traffic control radioed Flight 11 again, this time instructing the aircraft to climb to 35,000 feet. The flight did not respond. Over the next ten minutes, air traffic control tried nine times to contact the flight. All attempts were unsuccessful.⁴⁷

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According to the flight attendant's assigned seats, Karen Martin was in the first-class cabin and Bobbi Aretegui in the first-class galley, or kitchen. Sara Low and Jean Roger would have been serving business-class passengers, with Dianne Snyder in the mid-galley. Betty Ong and Amy Sweeney would have been working in coach, with Karen Nicosia in the rear galley. Jeffrey Collman would have been assigned to work in coach, or to assist in first class if needed.⁴⁸

The Hijacking. At *around 8:14 A.M. or shortly thereafter*,⁴⁹ the hijackers began their takeover of the aircraft. Information supplied by eyewitness accounts indicates that the hijackers initiated and sustained their command of the aircraft using knives (as reported by two flight attendants); violence, including stabbing and slashing (as reported by two flight attendants); the threat of violence (as indicated by a hijacker in radio transmissions received by air traffic control); Mace (reported by one flight attendant); the threat of a bomb, either fake or real (reported by one flight attendant); and deception about their intentions (as indicated by a hijacker in a radio transmission received by air traffic control).

8:19 A.M.⁵⁰ Flight attendant Betty Ong contacted the American Airlines Southeastern Reservations Office in Cary, North Carolina, via AT&T air phone to report an emergency aboard the flight. Flight attendants know the reservations 800 number because they call it frequently to help passengers with reservations questions. Calls to the number are routed to the first open line at one of several facilities, including the one in Cary.⁵¹

The emergency call from Betty Ong lasted approximately 25 minutes (**8:19 A.M.–8:44 A.M.**). Ong relayed vital information about events taking place aboard the airplane to authorities on the ground. Her call was received initially at the reservations office by an American Airlines employee. The call was transferred to another employee who, realizing the urgency of the situation, pushed an emergency button that simultaneously initiated a tape recording of the call and sent an alarm notifying Nydia Gonzalez, the reservations office supervisor, to pick up on the line. Gonzalez was paged to respond to the alarm and joined the call a short time later. Only the first four minutes of the phone call between Ong and the reservations center was tape-recorded because the recently installed recording system at that time contained a default time limit.⁵²

8:19 A.M. Ong reported, “The cockpit is not answering, somebody's stabbed in business class—and I think there's mace—that we can't breathe—I don't know, I think we're getting hijacked.”⁵³

While the reported “stabbing” in business class may have been an attack on the flight attendants, or on an unnamed victim, this may quite possibly have been the initial report of the attack (recounted with more specificity later) on a passenger in business class, seated in 9B—directly behind Atta and Omari, and in front of Suqami. The passenger was a 31-year-old man who had served four years as an officer in the Israeli military.⁵⁴

8:20 A.M. Ong reported that two flight attendants had been stabbed.⁵⁵

As noted above, American Airlines flight attendants all carried cockpit keys on their person. Although no information was provided from the flight about exactly how the hijackers gained access to the cockpit, it is possible the stabbings of the flight attendants could have been for the purpose of acquiring a key, of forcing one of them to open the cockpit door, or of luring the captain or first officer out of the cockpit.

Also at *8:20 A.M.*, the American Airlines dispatcher at the airline's operations center in Texas who was responsible for transatlantic flights received a communication from an American Airlines flight traveling from Seattle to Boston that air traffic control had asked the aircraft to try to contact Flight 11. This was the first indication she had of any problem on the flight.⁵⁶

8:21 A.M. The transponder on Flight 11 was switched off, making it more difficult for FAA air traffic control centers to identify the flight and monitor its flight path.⁵⁷

Also at *8:21 A.M.*, Gonzalez joined the call from Ong. Realizing the seriousness of the situation, she used another phone line to contact Craig Marquis, manager on duty, at the American Airlines System Operations Control (SOC) in Fort Worth, Texas, and informed the airline's headquarters that there was a problem aboard Flight 11. Gonzalez's emergency call to the SOC was recorded at the airline's headquarters. Gonzalez notified Marquis that Flight 11 was reporting an emergency, that stabbings had taken place, and that the flight attendants could not reach the cockpit.

After confirming Gonzalez's identity and position, at *8:22 A.M.* Marquis acknowledged the emergency and indicated to Gonzalez that he would "get ATC [air traffic control] on here." At this same time, while Marquis was relating this information to Gonzalez, Ong reported to Gonzalez's colleague: "I think the guys [hijackers] are up there. They might have gone there, jammed their way up there, or something. Nobody can call the cockpit. We can't even get inside." Thirty seconds after contacting American Airlines' headquarters, Gonzalez rejoined the call from Ong.⁵⁸

Also at *8:22 A.M.*, flight attendant Madeline "Amy" Sweeney tried to contact the American Airlines flight services office at Logan International Airport by air phone. The office she was attempting to call managed the scheduling and operation of flight attendants, and its phone number was well known to the American flight attendants operating out of Boston.⁵⁹ Sweeney's initial attempt to get through to the office failed.⁶⁰

8:23 A.M. The American Airlines flight dispatcher sent an Aircraft Communications and Reporting System (ACARS) text message to Flight 11: "Good Morning. . .ATC looking for you on [radio frequency] 135.32."⁶¹ ACARS is an email system that enables those in the cockpit of an in-flight aircraft and company personnel on the ground to rapidly communicate with one another. The dispatcher received no response to his message.

Also at 8:23 A.M., the tape recording of the call between Ong and the reservations center ceased because of the default time limit on the system. However, Gonzalez remained on the line with Ong for the next 21 minutes. Gonzalez continued to report the information she received from the flight attendant to the American Airlines SOC. The call between American's reservations facility and the SOC continued to be taped by the SOC until its conclusion.⁶²

8:24 A.M. Ong told Gonzalez that the hijackers were in the cockpit.⁶³ Sweeney attempted another call to the flight services office. It also failed.⁶⁴

Shortly before 8:25 A.M., air traffic controller Zalewski heard two clicks over the frequency assigned to the flight, and radioed in response, "Is that American eleven trying to call?" Five seconds later, a voice with a foreign accent addressed the passengers. "We have some planes. Just stay quiet and you'll be okay. We're returning to the airport."⁶⁵ Because the wrong button was pushed, this message was heard not by the passengers but by air traffic control. The controller did not comprehend the first sentence ("planes"); it was understood 30 minutes later after a facility manager was able to locate and replay the tape. (See 9:03 A.M. entry below.)

Seconds later, Boston Center heard the following transmission from the same foreign voice: 'Nobody move. Everything will be okay. If you try to make any moves, you'll endanger yourself and the airplane. Just stay quiet.'⁶⁶ According to Ong's simultaneous reporting, no announcements had been made from the cockpit to the passengers. This suggests that the hijackers' announcements were not heard in the cabin, and that they did not know how to operate the radio properly.

8:25 A.M. After hearing the second transmission from the aircraft, controllers at Boston Center believed that Flight 11 had been hijacked.⁶⁷

Also at 8:25 A.M., an American Airlines air traffic control (ATC) specialist at the SOC sent another ACARS message to Flight 11: "Plz contact Boston Center ASAP...They have lost radio contact and your transponder signal." Again, the aircraft did not respond to this or subsequent ACARS messages attempting to reestablish contact with the cockpit.⁶⁸

At the same time, Sweeney's third call to the American Airlines Flight Services Office at Boston finally was connected to an American Airlines' employee. Sweeney told her that someone was hurt aboard Flight 12, and then the phone call was cut off. The recipient of the call passed the information to Michael Woodward, the flight service manager.

Woodward went to American's gate area at Logan with a colleague. The supervisor noted that the morning flights had all departed Boston and the gate area was quiet. He further realized that Flight 12 was a flight to Boston from the West Coast that had not even left yet, so he and his colleague returned to the office to try to clarify the nature of the emergency call.⁶⁹

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Between 8:25 A.M. and 8:32 A.M., in accordance with the FAA protocol, Boston Center managers started notifying their chain of command that Flight 11 had been hijacked.⁷⁰

8:26 A.M. Ong reported to Gonzalez that the plane was "flying erratically." Gonzalez passed this information to the SOC.⁷¹

8:28 A.M., Boston Center called the FAA Air Traffic Control System Command Center in Herndon, Virginia (Herndon Command Center) to advise management that it believed Flight 11 had been hijacked and was heading toward New York Center's airspace. By this point in time, Flight 11 had taken a dramatic turn to the south. Command Center immediately established a teleconference between Boston, New York and Cleveland Centers to allow Boston Center to provide situational awareness to the centers that adjoined Boston in the event the rogue aircraft entered their airspace.⁷²

8:29 A.M. An air traffic control specialist at the American Airlines' SOC contacted Boston Center to ask about the status of Flight 11.

8:31 A.M. A controller at Boston Center told the American Airlines air traffic control specialist that the last known altitude of the aircraft was below 29,000 feet and that "He [Flight 11] was heading west. But right now he's pointed southwest of Albany." The controller also said the transponder had been lost and that "the controller heard a threat in the background, but that's unconfirmed and we're trying to pull the tape at this time."⁷³

8:32 A.M. The Herndon Command Center notified the Operations Center at FAA headquarters in Washington, D.C., of the possible hijacking of Flight 11, and was told that FAA security personnel at headquarters had just begun discussing the hijacking on a conference call with the agency's New England regional office.⁷⁴

Also at 8:32 A.M.,⁷⁵ the American Airlines flight service manager at Logan, Michael Woodward, returned to his office and discovered that Sweeney had called again and was speaking with an employee in the office. Woodward, who was a friend of Sweeney's, took over the call. Sweeney said that she was sitting in the back of the plane next to Ong, who was still on the phone with Gonzalez.

The phone call between Sweeney and Woodward lasted approximately 12 minutes. It was not taped. According to Woodward, Sweeney was calm and collected. She provided the following information: she was sitting in the back of the aircraft next to Betty Ong; the plane had been hijacked; a man in first class had had his throat slashed; two flight attendants had been stabbed—one flight attendant had been stabbed seriously and was on oxygen while another flight attendant's wounds were not as serious and seemed to be okay; a doctor had been paged; the flight attendants were unable to contact the cockpit; and there was a bomb in the cockpit.⁷⁶

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Sweeney told Woodward that she and Ong were trying to relay as much information as they could to people on the ground.⁷⁷

Sometime *after 8:30 A.M. but before 8:45 A.M.*, American Airlines Executive Vice President Gerard Arpey made a routine call to the airline's SOC and was informed that personnel there were on the phone with a flight attendant who was reporting violence and a cockpit intrusion on one of the company's flights. He tried unsuccessfully to contact American Airlines' Chairman Don Carty to apprise him of the situation. He immediately went to the SOC and learned that colleagues were setting up the company's System Operations Command Center (SOCC) in order to manage the emergency.⁷⁸

8:33 A.M. The SOC manager on duty, Craig Marquis, received a report from the SOC air traffic control specialist about the specialist's just-completed call to Boston Center. The specialist told him that the aircraft was at "29,000 feet. They've lost Comm [communications] with 'em. Turned off his transponder. Tracking his primary only. Was westbound. Turned southbound. Said the controller heard on the frequency the pilot apparently adjust his mike—lot of loud voices—that sounded threatening—something about return or I'll kill ya or something to that effect—or threatening dialogue."⁷⁹ American headquarters now suspected that Flight 11 had been hijacked.⁸⁰

Also at **8:33 A.M.**, Gonzalez received a report from Ong providing the first indication of a fatality on board. Gonzalez passed the information on to Marquis at **8:34 A.M.** as follows: "They think they might have a fatality on the flight. One of our passengers, possibly on 9B, Levin or Lewis, might have been fatally stabbed."⁸¹

8:34 A.M., While FAA headquarters received its initial notification that Flight 11 had been hijacked, the Boston controller received a third transmission from Flight 11: "Nobody move please. We are going back to the airport. Don't try to make any stupid moves."⁸²

Also at **8:34 A.M.**, in an attempt to get fighter aircraft airborne to track Flight 11, Boston Center's managers decided not to wait for the request for military assistance to be passed up the FAA chain of command, and took the initiative by calling a manager at the FAA Cape Cod facility. They asked the Cape Cod manager to contact Otis Air Force Base in Cape Cod, Massachusetts to get fighters airborne to "tail" the hijacked aircraft.⁸³

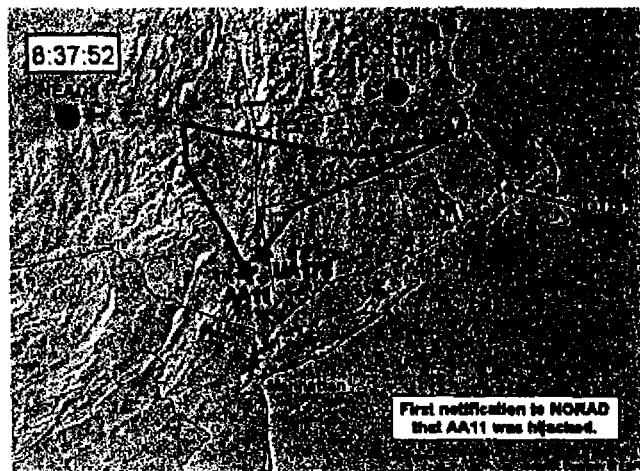
8:35 A.M. Gonzalez confirmed the details of a report by Ong regarding the identity of one of the hijackers: "He's the one that's in the—he's in the cockpit. Okay you said Tom Sukani? Okay—Okay and he was in 10B. Okay, okay, so he's one of the persons that are in the cockpit. And as far as weapons, all they have are just knives?"⁸⁴

8:36 A.M. Marquis received Gonzalez's report about the hijacker she referred to as "Tom al Sukani" (i.e., Satam al Suqami), who had been seated in 10B.⁸⁵ He then initiated action to "lockout" American Airlines Flight 11. This procedure is standard for airlines in safety and security incidents. It acknowledges an emergency on the flight and isolates information so that the case can be managed by top leadership at the airlines in a way that

protects information from being altered or released, and also protects the identities of the passengers and crew.

8:37 A.M. - 8:38 A.M., Gonzalez reported to Marquis that the passengers had been moved out of first class and back to coach and that the plane was flying erratically again. American completed its lockout of Flight 11.⁸⁶ Also at 8:38 A.M., Gonzalez reported that the plane was in a rapid descent. Marquis asked a fellow employee in the SOC if Flight 11 was descending. The employee replied, "We don't know. The transponder is off so we have no active read on him."⁸⁷

8:37:52 A.M. Boston Center called the North American Aerospace Defense Command's (NORAD) Northeast Air Defense Sector (NEADS) and notified NEADS about the suspected hijacking of Flight 11.⁸⁸ The United States' military defense of its homeland on 9/11 began with this call. Indeed, this was the first notification received by the military – at any level – that Flight 11 had been hijacked.



The report of the hijack was relayed immediately to Battle Commander Colonel Robert Marr at NEADS, who was stationed in the Battle Cab in preparation for a scheduled NORAD exercise. Col. Marr confirmed that the hijacking was "real-world" then ordered fighter pilots at Otis Air Force Base in Massachusetts to battle-stations.⁸⁹

Col. Marr then phoned Maj. General Larry Arnold, commanding General of the First Air Force and the Continental U.S. NORAD Region (CONR) commander. Col. Marr advised him of the situation, and sought authorization to scramble the Otis fighters in response to the reported hijacking. General Arnold instructed Col. Marr "to go ahead and scramble the airplanes and we'd get permission later. And the reason for that is that the procedure...if you follow the book, is they [law enforcement officials] go to the duty officer of the national military center, who in turn makes an inquiry to NORAD for the availability of fighters, who then gets permission from someone representing the Secretary of Defense. Once that is approved then we scramble an aircraft. We didn't wait for that."⁹⁰ General Arnold then picked up the phone and talked to the operations deputy at NORAD, who told him 'Yeah, we'll work with the National Military Command Center (NMCC). Go ahead and scramble the aircraft.'"⁹¹

At 8:40 A.M., NEADS placed two F-15 alert aircraft at Otis Air Force Base in Massachusetts, located about 153 miles away from New York City, on battle stations.⁹²

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Also at 8:40 A.M., information about Flight 11 started to be conveyed within the Air Traffic Control system. Boston Center, through the Herndon Command Center, provided a report to New York TRACON on Flight 11.

Also at 8:40 A.M., an American Airlines employee in Boston who was standing next to Michael Woodward as he talked to Sweeney contacted an employee in American Airlines' SOC. She reported the content of the ongoing call between Woodward and Sweeney, including that Sweeney said the hijackers were Middle Eastern men seated in 10B, 9D, and 9G; one spoke very little English and one spoke excellent English; she did not know how they had gained entry to the cockpit; and the aircraft was in a rapid descent.⁹³

8:41 A.M. Sweeney told Woodward that passengers in coach were under the impression that there was a routine medical emergency in first class. She said that the other flight attendants were attending to duties, including getting medical supplies, while she and Ong reported the events.⁹⁴

Also at 8:41 A.M., Marquis instructed an unidentified colleague in the SOC: "Tell ATC to handle this as an emergency." The colleague replied, "They have in there it's been hijacked." The manager responded: "It is. Okay."⁹⁵

The colleague then informed Marquis, "They think he's [Flight 11] headed toward Kennedy. They're moving everybody out of the way. They seem to have him on a primary radar. They seem to think that he is descending."⁹⁶

8:43 A.M. A Herndon Command Center air traffic specialist warned Washington en route center that Flight 11 was a "possible hijack" and would be headed towards Washington Center's airspace if it continued on a southbound track.

8:44 A.M., Gonzalez reported to Marquis that phone contact with Ong had been terminated: "We, I think we might have lost her."⁹⁷ About this same time, Sweeney reported to Woodward in Boston, "Something is wrong. We are in a rapid descent . . . we are all over the place." Woodward asked Sweeney to look out the window to see if she could determine where they were. Sweeney told him, "We are flying low. We are flying very, very low. We are flying way too low." Seconds later she said, "Oh my God we are way too low" and then the phone call ended.⁹⁸

8:45 A.M. The American Airlines employee listening to the call between Woodward and Sweeney reported to the SOC: , "She [Sweeney] started screaming and saying something's wrong and now he's [Woodward] having trouble—now he thinks he might be disconnected. Okay, we just lost connection."⁹⁹

Also at 8:45 A.M., the American Airlines director of security learned of the hijacking. He contacted the special agent in charge of the FBI's Dallas Field Office to tell him that a hijacking was taking place.¹⁰⁰

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8:46 A.M. The order to scramble the Otis fighters was passed from the NEADS Battle Commander (BC) to his Mission Crew Commander (MCC), who passed it to the Weapons Director (WD).¹⁰¹ Almost immediately, however, a problem arose. The Weapons Director asked: "MCC, I don't know where I'm scrambling these guys to. I need a direction, a destination."¹⁰² Because the hijackers had turned off the plane's transponder, the plane appeared only as a primary track on radar. The fighters were vectored to military air space near Long Island while NEADS personnel searched frantically for the missing flight.¹⁰³

8:46:40 A.M. American Airlines Flight 11 crashed into the North Tower of the World Trade Center in New York City.¹⁰⁴ All on board and an unknown number in the building were killed on impact.

By **8:50 A.M.**, American Airlines headquarters learned that an aircraft had struck the World Trade Center via a telephone call from an American employee at LaGuardia Airport. The airline did not know the plane was Flight 11.¹⁰⁵

8:53 A.M. Although the Otis fighters were airborne, neither the fighter pilots nor the NEADS officers were aware that Flight 11 had crashed into the World Trade Center's North Tower. When NEADS learned of the crash, the fighters were placed in a holding pattern in military airspace to await further instruction. NEADS had no knowledge that a second hijacked aircraft, United 175, was bearing down on the South Tower. The Otis fighters remained in a holding pattern until word reached NEADS that the second aircraft had crashed into the World Trade Center.

At about **9:03 A.M.**, Boston Center reported to the FAA's New England regional office that the hijackers stated, "We have some planes" during the 8:25 A.M. transmission from Flight 11.¹⁰⁶

9:16 A.M. The American Airlines SOC air traffic control specialist called an official at the FAA's Herndon Command Center and informed her that American "thought" Flight 11 had been the first aircraft to crash into the World Trade Center.¹⁰⁷

9:21 A.M. NEADS received a report from Boston Center that "it was evidently another aircraft that hit the tower" and that Flight 11 was still airborne and "heading towards Washington."¹⁰⁸ NEADS personnel immediately began an active search for the aircraft.

9:23 A.M. After consulting with the NEADS Battle Commander, the NEADS Mission Crew Commander issued an order to scramble alert fighters from Langley Air Force Base in Virginia in response to the report that Flight 11 was headed towards Washington DC.¹⁰⁹ The initial strategy of NEADS personnel was to use the alert fighters scrambled from Otis Air Force Base at 8:46 A.M. to chase down Flight 11 if they could find the aircraft, and to vector the Langley fighters on a northerly heading to an area between the (reported) southbound Flight 11 and the nation's capital.¹¹⁰

9:24 A.M. The order to scramble the Langley fighters was processed and transmitted by NEADS to Langley Air Force Base.¹¹¹

Shortly after *9:24 A.M.*, out of concern over leaving New York's airspace unprotected, NEADS commanders decided to cancel the plan to pursue Flight 11 with the Otis fighters.¹¹²

9:27 A.M. The military's situational awareness was summarized on the NEADS watch floor as follows: "Three planes unaccounted for. American Airlines 11 may still be airborne but the flight that – United 175 to the World Trade Center. We're not sure who the other one is."¹¹³

9:30 A.M. Radar data showed the Langley fighters airborne. On the floor at NEADS, the ID Technicians continued to attempt to locate American 11 after the Langley fighters were airborne.¹¹⁴

By *9:30 A.M.*, American Airlines confirmed that Flight 11 had crashed into the World Trade Center.¹¹⁵

Alleged Gun Use on Flight 11. The Commission investigated an allegation that a gun was used aboard American Airlines Flight 11. The allegation arose from a notation in an initial executive summary produced on September 11, 2001, by FAA staff indicating that FAA headquarters had received a report of a shooting on the plane from an American Airlines employee at the company's operations center.¹¹⁶ The report did not mention a stabbing. In interviews with the Commission, the individual alleged to have made the report to the FAA denied having done so.¹¹⁷

Regardless of what reports were received in the chaotic environment of the various operations centers at the FAA, the airports, and the airlines, authoritative information about whether a shooting occurred on Flight 11 could have come only from individuals on the aircraft who were reporting events to contacts on the ground.

As noted above, two flight attendants aboard American Airlines Flight 11 placed calls to ground contacts to report what was happening on the aircraft. Neither in the tape recordings of the calls nor in the accounts of the witnesses to the calls is the presence of a gun or the occurrence of a shooting reported.¹¹⁸ These witnesses' accounts of the phone calls are consistent and are quite specific about the presence of knives and the stabbing or slashing of two crew members and a passenger.

In order to accept the accuracy of the initial FAA executive summary concerning a shooting (disregarding the evidence by eyewitnesses to the contrary), one would have to believe that the American Airlines operations center relayed to the FAA the account of a shooting that no witness recalls while neglecting to include the account of a stabbing that was widely reported, including to personnel in the operations center. This seems highly implausible.

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In fact, the victim of the alleged shooting that was noted in the FAA executive summary was seated in 9B. That seat, according to several of the witness accounts from the aircraft, was assigned to the passenger who was stabbed.¹¹⁹

Both the FBI and the General Accounting Office investigated the story of a gun aboard Flight 11 and could find nothing to substantiate the version in the executive summary. In addition, while investigators have uncovered evidence of numerous knife purchases by the 19 hijackers leading up to September 11, 2001, there was no evidence that they purchased or possessed firearms.¹²⁰

Furthermore, the tactics of all four hijacking teams involved in the plot were similar. No evidence has been uncovered to suggest that the hijackers on any of the other flights used firearms. Evidence shows that common tactics were used among the flights including the use of knives, the threat of a bomb (either real or simulated) reported on three flights, and the presence of Mace reported on two flights. It seems unlikely that one of the teams would depart from the tactical discipline of the plotters' mutual strategy.

Evidently, the account of the attack on the business-class passenger—the only attack on a passenger reported by eyewitnesses—became garbled as it was relayed between airline and FAA authorities in the confusion of the rapidly unfolding events of the day.

1.2 UNITED AIR LINES FLIGHT 175

Hijackers. Marwan al Shehhi (pilot); Mohand al Shehri; Hamza al Ghamdi; FAYEZ Banihammad; Ahmed al Ghamdi.

Hijacker Weapon Purchase. On August 13, 2001, Marwan al Shehhi purchased two short-bladed knives, a Cliphanger Viper and an Imperial Tradesman Dual Edge. On the same day and in the same city, FAYEZ Banihammad bought a Stanley two-piece snap knife set (a type of multi-tool), and Hamza al Ghamdi purchased a Leatherman Wave multi-tool.¹²¹

Hijacker Arrival at Airport and Check-in. At 6:20 A.M.,¹²² Ahmed al Ghamdi and Hamza al Ghamdi checked in at the United Air Lines (UAL) ticket counter at Logan International Airport in Boston.¹²³ They approached a United Air Lines customer service representative, who immediately referred them to another agent because one of the men presented a "certificate" that the first agent was unfamiliar with.¹²⁴

This second customer service representative said that one of the two men told her that he needed a ticket. She examined his documents and found that he already had a UAL envelope with an itinerary and ticket in his hand. She told him that he did not need a ticket but could check-in. The United agent recalled that the men checked two bags. She thought each had one carry-on bag resembling a briefcase. She recalled that each man had "problems" answering the standard security questions, and that she had to repeat them "very slowly." After the questioning, the men departed the counter area for the security checkpoint.¹²⁵

6:20 A.M. Ahmed al Ghamdi checked two bags that were loaded on the aircraft at *6:31 A.M.*¹²⁶

6:45 A.M. Marwan al Shehhi checked a single bag. It was loaded on the plane at *6:51 A.M.*¹²⁷

6:52 A.M. A call was placed to Mohamed Atta's cell phone from a pay phone in Terminal C located between the screening checkpoint and the departure gate.¹²⁸ The call lasted three minutes and was most likely a last-minute check between Atta, who had just arrived in Boston, and Marwan al Shehhi.¹²⁹

6:53 A.M. Fayed Banihammad (listed in the airline passenger record as Fayed Ahmed) and Mohand al Shehri (listed as Mohald) checked in. Banihammad checked two bags, which were loaded at *6:57 A.M.*¹³⁰

Hijacker Prescreening. None of the Flight 175 hijackers was selected for additional security scrutiny by the CAPPS system.¹³¹

Checkpoint Security Screening. Because Logan Airport did not use video cameras to monitor activities at security checkpoints, we could not establish with certainty when the five hijackers passed through security screening or how they were processed. Judging from when they checked in for the flight, we estimated they were screened within the time frames as follow:

To reach their departure gate, after checking in, the hijackers had to pass through a checkpoint in Terminal C before boarding.¹³² The checkpoint was under the custodial responsibility of United Air Lines. It had contracted the screening duties to Huntleigh USA Corporation. None of the checkpoint supervisors recalled the hijackers or reported anything suspicious regarding their screening.¹³³

Hijacker Boarding. Fayed Banihammad boarded the flight at *7:23 A.M.* He was seated in 2A (first class). Mohand al Shehri boarded at the same time and sat next to him in 2B.

Four minutes later, both Marwan al Shehhi, seated in 6C (business class), and Ahmed al Ghamdi, seated in 9D (business class), embarked. At *7:28 A.M.*, Hamza al Ghamdi was the last hijacker to board the flight; he sat in 9C (business class).¹³⁴

Flight Profile. The flight was scheduled to depart Logan at 8:00 A.M. for Los Angeles International Airport. The aircraft was a Boeing 767, with tail number N612UA.¹³⁵

Captain Victor Saracini and First Officer Michael Horrocks piloted the plane. The flight attendants were

- Robert Fangman, assigned to the middle center jump seat between the middle galley and coach;

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- Amy Jarret, assigned to the right jump seat, located in the back of the plane between coach and the rear galley;
- Amy King, assigned to the forward center jump seat, located between the forward galley and the first-class cabin;
- Kathryn Laborie, assigned to the forward left jump seat next to the cockpit entrance;
- Alfred Marchand, assigned the forward center jump seat, located between the forward galley and the first-class cabin;
- Michael Tarrou, assigned to the rear left jump seat, located in the back of the plane between coach and the rear galley; and
- Alicia Titus, assigned to the middle center jump seat between the middle galley and coach.¹³⁶

The aircraft had a capacity of 168 passengers: 10 in first class, 33 in business class, and 125 in coach. The flight carried 56 passengers (including 5 hijackers) with 2 pilots and 7 flight attendants, for a total of 65 people on board.

Nine of the 10 first-class seats were occupied, including 2 by hijackers Banihammad and Mohand al Shehri. Eleven of the 33 business-class seats were occupied, 3 by hijackers Shehhi, Hamza al Ghamdi, and Ahmed al Ghamdi; and 36 of the 125 coach seats were occupied, none by hijackers.¹³⁷

The 56 passengers represented a load factor of one-third of the plane's passenger capacity. This figure is considerably below the 49 percent average load factor for Flight 175 for Tuesdays in the three-month period prior to September 11. It represented the third-lowest load factor among the scheduled flights during that period,¹³⁸ when Tuesdays were the least traveled day for Flight 175.¹³⁹

There is no evidence that the Flight 175 hijackers purchased additional tickets for the flight beyond the ones they actually used.¹⁴⁰

All the hijackers were accounted for on the flight, and according to United's records, no paperwork was filed to indicate that any cockpit jumpseat was occupied by anyone other than flight crew.¹⁴¹

Under United Air Lines policy at the time, a key to the cockpit door was stowed in a designated place near the cockpit door.¹⁴²

Flight 175 was loaded with 76,000 pounds of fuel,¹⁴³ a normal amount for the cross-country flight.¹⁴⁴

The Flight. At 7:58 A.M., Flight 175 pushed back from Gate 19 in Terminal C, and it departed Logan Airport at 8:14 A.M.¹⁴⁵

At 8:19 A.M., Flight 175 made radio contact with a Boston Center air traffic controller.¹⁴⁶

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8:33 A.M. Flight 175 reached its assigned cruising altitude of 31,000 feet.¹⁴⁷ At or around this time, flight attendants Laborie and Marchand would have begun cabin service in first class, while flight attendants King and Fangman would have done the same in business class, and Tarrou, Jarret, and Titus would have served coach class.¹⁴⁸

8:37 A.M. FAA air traffic controllers asked the flight crew of Flight 175 to look for American Airlines Flight 11.¹⁴⁹

8:38 A.M. The crew of Flight 175 radioed air traffic control that they had spotted the aircraft at 28,000 or 29,000 feet. FAA air traffic control told them to turn their aircraft to avoid Flight 11.¹⁵⁰

8:40 A.M. Control of Flight 175 was passed from Boston Center to the New York Air Traffic Control Center at Ronkonkoma, New York (New York Center).¹⁵¹

8:41 A.M. The flight crew of Flight 175 reported to air traffic controllers that "we heard a suspicious transmission [from another aircraft] on our departure out of Boston—like someone keyed the mike and said everyone stay in your seats."¹⁵²

United's system operations control manager in Chicago reported that though he normally received relevant information about United flights from FAA air traffic control, on September 11, 2001, he did not recall receiving information about any air traffic control communications with or from Flight 175, including the 8:41 A.M. report.¹⁵³ The other senior United Air Lines officials working in the operations center on 9/11 confirmed that they were never told of this communication, though they stated that air traffic controllers would "first and foremost" communicate directly with pilots. Furthermore, these officials reported that they never received any communication on the morning of September 11, 2001, from the FAA or the air traffic control system advising United to contact its aircraft about the hijackings.¹⁵⁴

At 8:42 A.M., the flight crew of Flight 175 completed their report on the "suspicious transmission" they had received from another plane. This represented the flight's last communication with the ground.¹⁵⁵

The Hijacking. Between 8:42 A.M. and 8:46 A.M., the hijackers began their takeover of the flight. The hijackers initiated and sustained their command of the aircraft using knives (as reported by two passengers and a flight attendant), Mace (reported by one passenger), and the threat of a bomb (reported by the same passenger). They stabbed flight crew members (as reported by a flight attendant and one passenger) and killed both pilots, (as reported by a flight attendant).

All of these eyewitness accounts were provided via phone calls (as described below) from the back of the plane, even though the passengers calling had each been assigned a seat in the front or middle of the cabin.¹⁵⁶

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Given the similarities to Flight 11 in hijacker seating and in the eyewitness reports of tactics and weapons, as well as the close contact between presumed team leaders Atta and Shehhi, it is likely the hijacking unfolded in much the same manner as on Flight 11.

8:47 A.M. Flight 175's transponder code changed twice within a one-minute period.¹⁵⁷ David Bottiglia, the New York Center air traffic controller responsible for Flight 175 was also handling Flight 11, which he was told had been hijacked. At this point he was trying to locate Flight 11 and did not notice the transponder code changes on Flight 175 until **8:51 A.M.**¹⁵⁸

8:50 A.M. Delta Airlines Flight 1489 radioed in and advised David Bottiglia there was "a lot of smoke in lower Manhattan" and the World Trade Center looked like it was on fire.¹⁵⁹ The controller acknowledged the message at 8:51 A.M., and agreed to pass on any news, then noticed a change in the transponder reading from Flight 175. The controller asked Flight 175 to recycle its transponder to the proper code.¹⁶⁰ There was no response.

Also at **8:51 A.M.**, Flight 175 deviated from its assigned altitude.¹⁶¹

8:52 A.M. David Bottiglia made the first of five unsuccessful attempts over a three-minute period to contact the flight.¹⁶² While continuing his attempts to contact Flight 175, David Bottiglia spent the next several minutes handing off the other flights on his scope to other controllers and moving aircraft out of the way of the unidentified aircraft (believed to be Flight 175) as it moved southwest and then turned northeast toward New York City.¹⁶³

Also at **8:52 A.M.**, Lee Hanson received a phone call from his son, passenger Peter Burton Hanson,¹⁶⁴ who told him that the flight was being hijacked. "I think they've taken over the cockpit—An attendant has been stabbed—and someone else up front may have been killed. The plane is making strange moves. Call United Air Lines—Tell them it's Flight 175, Boston to LA." Lee Hanson then called the Easton, Connecticut, Police Department, relayed the information from his son to a police captain, and asked for his help.¹⁶⁵

Also at **8:52 A.M.**,¹⁶⁶ Marc Policastro, an employee at the United Air Lines maintenance office in San Francisco (SAMC), received a phone call from a male flight attendant¹⁶⁷ on Flight 175 who reported that the aircraft had been hijacked, both pilots had been killed, a flight attendant had been stabbed, and he believed the hijackers were flying the plane. The call lasted about two minutes. Policastro tried unsuccessfully to contact the flight via ACARS.¹⁶⁸ Another employee at the maintenance office also tried to contact Flight 175 with an ACARS message around this time, with a message requesting the flight crew to confirm reports of an incident onboard.¹⁶⁹ None of these or any subsequent attempts to contact Flight 175 were acknowledged from the aircraft.

Beginning at 8:52 A.M. and continuing until 8:59 A.M., a passenger unsuccessfully tried a total of four times to reach his wife on both her business and home phone lines.¹⁷⁰

Meanwhile, at United's (UAL) headquarters in Chicago, the air traffic control coordinator called an official at the FAA Herndon Command Center to confirm that the

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plane that had just crashed into the World Trade Center was not a United plane. He was informed that the aircraft was a hijacked American Airlines 757.¹⁷¹ Shortly thereafter, the UAL coordinator briefed the director of United's systems operations center, and the shift manager of United's flight dispatch, about the call. The dispatch manager attempted to notify top corporate officials but was unable to do so because the UAL pager system was not working.¹⁷²

At *approximately 8:55 A.M.* a New York Center supervisor notified the center's operations manager of her belief that Flight 175 had been hijacked.¹⁷³

8:57 A.M. Flight 175 turned to the northeast and leveled off at 28,500 feet. *One minute later*, it headed toward New York City.¹⁷⁴

8:58 A.M. David Bottiglia, the New York Center controller searching for Flight 175, told another New York controller "we might have a hijack over here, two of them."¹⁷⁵

8:59 A.M. Passenger Brian David Sweeney¹⁷⁶ attempted to call his wife, Julie. He left a message on their home answering machine telling her that the plane had been hijacked.¹⁷⁷

Also at *8:59 A.M.*, an employee at United's maintenance office in San Francisco sent three ACARS messages to Flight 175. Each read, "I heard of a reported incident aboard your acft [aircraft]. Plz verify all is normal."¹⁷⁸

Shortly before 9:00 A.M., one of this employee's supervisors in the San Francisco office called United's station operations control manager in Chicago to tell him of the reported hijacking of Flight 175.¹⁷⁹ The operations center manager initially thought the report referred to the American Airlines hijacking, but the supervisor in San Francisco reiterated that it was about Flight 175.¹⁸⁰ The Chicago manager notified his boss, United's operations center director, who in turn contacted United's chief operating officer, Andy Studdert, and the company's CEO, James Goodwin.¹⁸¹ The employee supervisor also called the airline's security chief. The SOC director and the supervisor began the process of activating the crisis center at United's headquarters, which took about 30 minutes to complete.¹⁸²

At *approximately 9:00 A.M.*, the FAA's New York Center informed the UAL air traffic control coordinator that Flight 175 was missing from radar.¹⁸³

*9:00 A.M.*¹⁸⁴ Passenger Brian David Sweeney called his mother and told her that his flight had been hijacked. He said that the passengers were thinking about storming the cockpit to wrest control of the plane away from the hijackers. He thought they were flying somewhere over Ohio. Immediately after the call from her son, Mrs. Sweeney turned on the television and saw the second aircraft crash into the South Tower of the World Trade Center.¹⁸⁵

Also at *9:00 A.M.*,¹⁸⁶ Lee Hanson received a second call from his son who told him: It's getting bad, Dad—A stewardess was stabbed—They seem to have

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knives and Mace—They said they have a bomb—It's getting very bad on the plane—Passengers are throwing up and getting sick—The plane is making jerky movements—I don't think the pilot is flying the plane—I think we are going down—I think they intend to go to Chicago or someplace and fly into a building.¹⁸⁷

The call ended abruptly. Hanson did not know whether his son had hung up or the phone had malfunctioned. After the call, Hanson turned on his television. He watched as the second plane slammed into the South Tower.¹⁸⁸

9:01 or 9:02 A.M. A United flight dispatch manager went to the desk of Ed Ballinger, the dispatcher responsible for the airline's East to West Coast flights. He told the dispatcher of the information just received by the operations center manager from the San Francisco maintenance office that had led them to suspect Flight 175 had been hijacked.¹⁸⁹

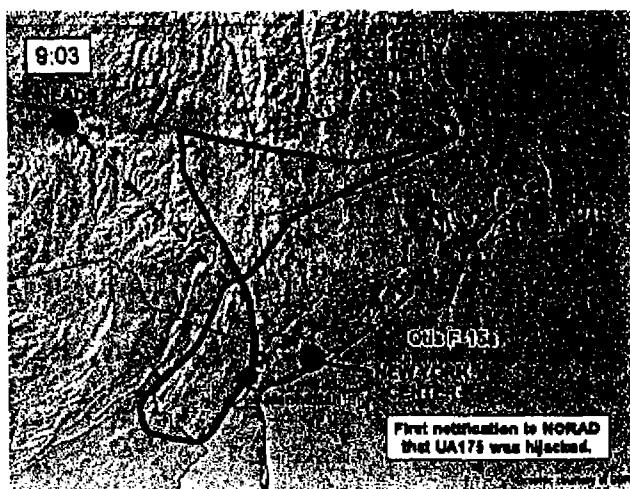
Between **9:01 A.M. and 9:02 A.M.**, a manager from New York Center told the FAA Command Center: "We have several situations going on here. It's escalating big, big time. We need to get the military involved with us. . . . We're, we're involved with something else, we have other aircraft that may have a similar situation going on here."¹⁹⁰ The "other aircraft" referred to by New York Center was Flight 175. The evidence suggests this conversation was the only notice received by either FAA headquarters or the Herndon Command Center prior to the second crash that there had been a second hijacking. While the Herndon Command Center was told about this "other aircraft" at **9:01 A.M.**, New York Center contacted New York terminal approach control and asked for assistance in locating Flight 175. At **9:02 A.M.**, as New York terminal approach controllers located Flight 175 rapidly descending into lower Manhattan, a New York Center manager stated, "[a]llright. Heads up man, it looks like another one coming in."¹⁹¹

At **9:03 a.m.**, Terry Biggio, a manager from FAA's Boston Center, reported to an FAA New England region representative that they had deciphered what the hijackers on board American 11 said during the first radio transmission (at 8:25 A.M.). Biggio reported that the hijackers said "we have planes." He then emphasized that they said "planes as in plural." As the air traffic controllers in Boston came to the tragic realization that the hijackers may have hijacked multiple commercial aircraft, Flight 175 was about to strike the South Tower of the World Trade Center.¹⁹²

9:03 A.M. Ballinger sent an ACARS message to the aircraft: "How is the ride. Anything dispatch can do for you." Another ACARS was sent at the same time by the UAL air traffic control coordinator: "NY approach lookin for ya on [frequency] 127.4."

9:03 A.M. NEADS air defenders received their first notice of a second hijacked aircraft when New York Center told a NEADS Identification Technician that Flight 175 was a "second possible hijack."¹⁹³

9:03:11 A.M.¹⁹⁴ United Air Lines Flight 175 crashed into the South Tower of the World Trade Center. The aircraft was traveling at over 587 miles per hour at impact.¹⁹⁵ All on board and an unknown number in the building were killed instantly.



9:03:22 A.M. Seconds after Flight 175 crashed into the South Tower, Terry Biggio, Boston Center's manager, advised the New England Region that New York confirmed that a second plane had struck the World Trade Center.¹⁹⁶

Shortly after, unaware that Flight 175 had flown into the World Trade Center, Ballinger again attempted to communicate with the aircraft. He sent the same ACARS message: "How is the ride. Anything dispatch can do for you."¹⁹⁷ Meanwhile, the airline's air traffic control coordinator re-sent his ACARS message, "NY approach lookin for ya on 127.4."¹⁹⁸

9:04 A.M. Terry Biggio immediately advised New England Region that Boston Center was going to stop all departures at airports under its control and suggested they "do the same elsewhere."¹⁹⁹

Between **9:04 A.M. and 9:07 A.M.**, the NEADS Identification Technicians were on the phone with FAA Boston Center seeking further information on Flight 175 when Boston Center confirmed a second crash at the World Trade Center.²⁰⁰

9:05 A.M. On an open line monitored by Herndon Command Center, Terry Biggio contacted the New England Region and confirmed that the hijackers on board American 11 said "we have planes."²⁰¹

9:05 A.M. New York Center declared "ATC zero"—meaning that aircraft were not permitted to depart from, arrive at, or travel through New York Center's airspace until further notice.²⁰²

9:07 A.M. Fearing there may be additional attacks after the second WTC crash, Terry Biggio asked a New England Region manager if warnings to increase cockpit security could be sent to airborne aircraft via "ACARS or something." Biggio was particularly concerned about warning airborne international flights scheduled to arrive at JFK International Airport. While Boston Center did not want to alarm any airborne aircraft,

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they were considering using the radio frequencies to alert international flight crews to heighten their cockpit security. On the advice of a New England Region representative, Boston Center decided to contact Air Transport Association ("ATA") representatives through Herndon Command Center and ask the ATA representatives to formally request that airline companies warn their aircraft to heighten cockpit security. Not content to rely on the airlines to warn their aircraft, Terry Biggio decided that Boston Center would issue a Notice to Airmen ("NOTAM") to heighten cockpit security in light of the attacks on New York.²⁰³

By 9:08 A.M., the mission crew commander at NEADS learned of the second explosion at the World Trade Center and decided against holding the fighters in military airspace away from Manhattan. Anticipating additional attacks on New York, the mission crew commander told his crew:

This is what I foresee that we probably need to do. We need to talk to FAA. We need to tell 'em if this stuff is gonna keep on going, we need to take those fighters, put 'em over Manhattan. That's best thing, that's the best play right now. So coordinate with the FAA. Tell 'em if there's more out there, which we don't know, let's get 'em over Manhattan. At least we got some kind of play.²⁰⁴

9:09 A.M. After learning about the second crash at the World Trade Center, NEADS ordered alert fighters at Langley Air Force Base to battle stations. Colonel Marr, the battle commander at NEADS, and General Arnold, the CONR Commander, both recall that the planes were held on battle stations, as opposed to scrambling, because they might be called upon to relieve the Otis fighters over New York City if a refueling tanker was not located, and also because of the general uncertainty of the situation in the sky.²⁰⁵ After initially considering scrambling the Langley fighters to New York to provide backup for the Otis fighters, they decided to leave the Langley jets on "battle stations only."²⁰⁶ NORAD had no indication that any other plane had been hijacked.

9:09 A.M. to 9:10 A.M. Terry Biggio instructed all air traffic controllers in Boston Center to use their radio frequencies to inform all aircraft within Boston Center's airspace of the events unfolding in New York and to advise the aircraft to heighten cockpit security in light of those events. Boston air traffic controllers immediately executed Biggio's order.²⁰⁷

9:10 A.M. A UAL dispatch operations shift manager's timeline log entry noted, "At that point a second aircraft had hit the WTC, but we didn't know it was our United flight."²⁰⁸

Between 9:10 A.M. and 9:20 A.M. The United dispatch operations manager spoke with the American Airlines dispatch operations manager about the two crashes into the World Trade Center. The American official believed both aircraft were his; the United official was increasingly "confident" that the second plane was Flight 175. In slow motion and enlarged images of the second impact on CNN, he could see that the airplane did not have the shiny metallic color of American jets.²⁰⁹

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9:12 A.M. A staff analyst in United headquarters alerted United dispatch, flight safety, and flight operations personnel about the American Airlines crash and the missing UAL Flight 175.²¹⁰

9:13 A.M. Radar data show the Otis fighters were approximately 115 miles away from New York City when they exited their holding pattern and set a course direct for Manhattan.²¹¹

At approximately **9:15 A.M.**, Daniel Bueno, another Boston Center manager, asked the Herndon Command Center to contact all FAA centers in the country and instruct them to issue a similar cockpit security alert to all airborne aircraft. Commission staff has found no evidence to suggest that the Command Center acted on Bueno's request or issued any type of nationwide cockpit security alert.²¹² One Command Center manager told Commission staff that the FAA culture and mindset on 9/11 was such that they would never have relayed this message directly to all pilots. She said the FAA would pass situational awareness to the airline company representatives who, in turn, would determine if such action was necessary.²¹³

9:19 A.M. Ballinger sent the following ACARS message to his airborne flights: "Beware any cockpit intrusion... Two aircraft in NY hit trade center builds."²¹⁴

9:20 A.M. The UAL dispatch operations manager now believed that the second aircraft to crash into the World Trade Center was Flight 175. Its identity was still unconfirmed.²¹⁵

9:22 A.M. The UAL system operations control manager issued an advisory, under the name of UAL Chief Operating Officer Andy Studdert, to all UAL facilities—including the flight dispatchers—stating that Flight 175 had been involved in an accident in New York City and that the crisis center had been activated.²¹⁶ Just prior to the Studdert advisory, United headquarters began the lockout procedure to restrict access to passenger and crew information about the flight.²¹⁷

9:23 A.M. Ballinger sent out his "cockpit intrusion" message to Flight 175.²¹⁸ At this time, while the dispatcher was aware that two large aircraft (including one United airliner) had crashed into the World Trade Center and that Flight 175 had been hijacked, he was not aware that Flight 175 had crashed.²¹⁹

9:25 A.M. The Otis fighters arrived over Manhattan and established a combat air patrol (CAP) over the city.²²⁰

1.3 AMERICAN AIRLINES FLIGHT 77

Hijackers: Hani Hanjour (pilot); Khalid al Mihdhar; Nawaf al Hazmi; Salem al Hazmi; Majed Moqed.

Hijacker Weapon Purchases. On August 27, Nawaf al Hazmi purchased Leatherman multi-tool knives.²²¹

Hijacker Check-in and Checkpoint Security Screening. At approximately **7:15 A.M.**, Majed Moqed and Khalid al Mihdhar checked in at the American Airlines ticket counter at Dulles and proceeded to checkpoint screening.²²²

Security screening for Flight 77 was conducted at the east and west checkpoints in the Main Terminal. United Air Lines had custodial responsibility for the screening and contracted out the work to Argenbright Security. All five of the hijackers passed through the same checkpoint. Closed-circuit television recorded all passengers, including the hijackers, as they were screened.²²³

7:18 A.M. Moqed and Mihdhar entered the security screening checkpoint. They placed their carry-on bags on the X-ray machine belt and proceeded through the first walk-through metal detector. Both set off the alarm and were directed to a second metal detector. While Mihdhar did not trigger the second metal detector and was permitted through the checkpoint, Moqed failed once again. A security officer screened him with a hand-held metal detection wand. He passed this cursory inspection.²²⁴

At approximately **7:29 A.M.**, Nawaf al Hazmi and Salem al Hazmi checked in at the American ticket counter.²²⁵

7:35 A.M. Hani Hanjour placed two carry-on bags on the X-ray belt and passed through the metal detector. He picked up his carry-on bags and proceeded through the checkpoint.

7:36 A.M., Nawaf and Salem al Hazmi entered the same checkpoint. Salem, with one carry-on bag, successfully cleared the magnetometer and was permitted through the checkpoint. Nawaf set off the alarms for both the first and second magnetometers. He was hand-wanded and his shoulder bag was swiped by an explosive trace detector before he was allowed to proceed. The video footage showed that he was carrying an unidentified item clipped to the rim of his back pants pocket.²²⁶

Hijacker Prescreening Selectee Status. CAPPS selected all five of the Flight 77 hijackers for added security scrutiny. Hanjour, Mihdhar, and Moqed were chosen by the computer algorithm. Nawaf al Hazmi and Salem al Hazmi were both made CAPPS selectees at the discretion of the airline's customer service representative who checked them in.²²⁷ The agent told us that one of the hijackers (Salem, we believe) presented identification without a picture and did not seem to be able to understand English. He said that he thought both were suspicious and made sure he made both of them selectees.

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The only consequence of selection, however, was that their bags were held off the plane until it was confirmed that they had boarded the aircraft.²²⁸

Thus, Hanjour, Nawaf al Hazmi, and Mihdhar, who did not check any bags on September 11, suffered no consequences from their selection by the system. For Salem al Hazmi, who checked two bags, and Moqed, who checked one bag, the sole consequence was that their baggage was not loaded onto Flight 77 until after their boarding was confirmed.²²⁹

Hijacker Boarding. At approximately 7:50 A.M., Moqed and Mihdhar boarded Flight 77 and were seated in seats 12A and 12B of coach, respectively. Hanjour, assigned to seat 1B, in first class, boarded at approximately 7:52 A.M. Finally, Nawaf al Hazmi and Salem al Hazmi, occupying seats 5E and 5F in first class, boarded at approximately 7:55 A.M.²³⁰

Flight Profile. Flight 77 provided nonstop service between Washington Dulles International Airport and Los Angeles International Airport. It was scheduled to depart at 8:10 A.M. The aircraft was a Boeing 757, tail number N644AA.²³¹

Captain Charles F. Burlingame and First Officer David Charlebois piloted the plane. The flight attendants on Flight 77 were

- Michele Heidenberger, assigned to the rear left jump seat in the very back of the plane at takeoff;
- Jennifer G. Lewis, assigned to the right middle jump seat between first class and coach (and therefore between the hijackers in 5E and 5F and those in 12A and 12B);
- Kenneth E. Lewis, assigned to the right rear jump seat; and
- Renee May, assigned to the forward left jump seat next to the entry area and between the first row of first class and the cockpit.²³²

The aircraft had a capacity of 176 passengers, 22 in first class and 154 in coach. On September 11, 2001, the flight carried 58 passengers (including 5 hijackers) with 2 pilots and 4 flight attendants for a total of 64 people on board. Fifteen of the 22 first-class seats were occupied, 3 by hijackers. Forty-three of the 154 economy seats aboard were occupied, 2 by hijackers.

The 58 passengers represented a load factor of 33.0 percent of the plane's passenger capacity of 176. This figure is almost identical to the 32.8 percent average load factor for Flight 77 for Tuesdays in the three-month period prior to September 11. During that time, Tuesdays were the least traveled day for Flight 77.²³³

The Commission has found no ticketing, passenger occupancy, or financial evidence to indicate that the hijackers purchased additional seats (beyond the ones they actually used) in order to limit the number of passengers they would need to control during the operation.²³⁴

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All the hijackers were assigned seats as they checked in and boarded the flight. According to American's records, "no documentation for a jump seat passenger was filed for Flight 77."²³⁵ There is no evidence to suggest that any hijacker was admitted into the cockpit and permitted to sit in a jump seat prior to the takeover.

As on Flight 11, under American Airline policy in effect on 9/11, every crew member, including each of the flight attendants, had a key to the cockpit.²³⁶

Flight 77 was loaded with 49,900 pounds of fuel. The amount of fuel was below the average (59,400 pounds) for the flight during 2001.²³⁷

The Flight. Flight 77 pushed back from Dulles Gate D-26 at 8:09 A.M.²³⁸

8:20 A.M. Flight 77 took off from Dulles.²³⁹

8:40 A.M. After proceeding normally through air space controlled by the Washington Air Traffic Control Center (Washington Center), Flight 77 was handed off to the Indianapolis Air Traffic Control Center (Indianapolis Center), with which it made routine radio contact.²⁴⁰

8:46 A.M. Flight 77 reached its assigned cruising altitude of 35,000 feet.²⁴¹ Cabin service would have begun, with Renee May likely working in the first-class galley between the cockpit and first class, Michele Heidenberger in the galley at the rear of the plane, Jennifer Lewis circulating in first-class, and Kenneth Lewis in the main cabin.²⁴²

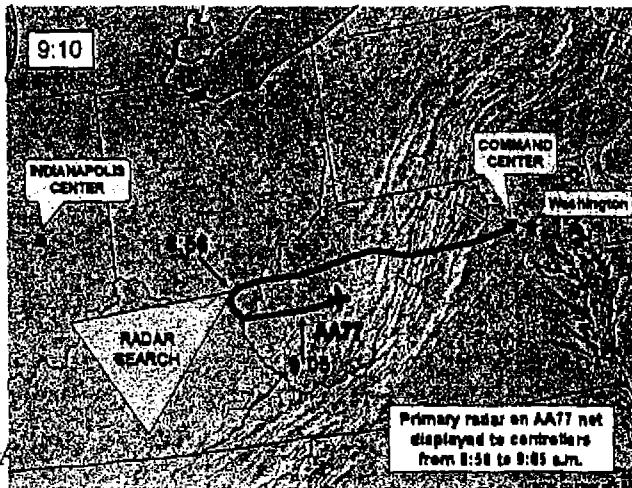
8:51 A.M. Flight 77 transmitted its last routine radio communication, an acknowledgment from the cockpit crew to air traffic control's navigational instructions.²⁴³

The Hijacking. *Between 8:51 A.M. and 8:54 A.M.*, the hijackers began their takeover of the aircraft. They initiated and sustained their command of the aircraft using knives and box cutters (reported by one passenger) and moved all of the passengers (and possibly crew) to the rear of the aircraft (reported by one flight attendant and one passenger).

Neither of the firsthand accounts to come from Flight 77, from a flight attendant and from a passenger, mentioned any actual use of violence (e.g., stabbings) or the threat or use of either a bomb or Mace. Both of these witnesses began the flight in the first-class cabin.

8:54 A.M. The aircraft deviated from its assigned course by making a slight turn to the south.²⁴⁴

8:56 A.M. The transponder was switched off, and the aircraft was lost on primary radar.²⁴⁵ The controller tracking Flight 77 continued to look for it. He searched



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along its projected flight path and the airspace to the southwest where it had started to turn. No primary targets appeared. He tried the radios, first calling the aircraft directly, then the airline. Again there was nothing. At this point, the Indianapolis Center controller had no knowledge of the situation in New York. He did not know that other aircraft had been hijacked. He believed Flight 77 had experienced serious electrical and/or mechanical failure, and was gone. At the same time, the Indianapolis Center made the first of ten unsuccessful attempts over the next six and a half minutes to contact the aircraft via radio.²⁴⁶

Shortly after 8:56 A.M., the Indianapolis Center controller reached out to controllers in other sectors at Indianapolis Center to advise them of the situation.²⁴⁷ The controllers agreed to "sterilize the air space" along the flight's projected westerly route so that other planes would not be affected by Flight 77.²⁴⁸ Two Indianapolis Center managers joined the controller responsible for Flight 77 in searching for the flight. The managers did not instruct other controllers at Indianapolis Center to turn on their primary radar coverage to join in the search for Flight 77.

By 8:58 A.M., FAA air traffic control contacted American to advise the airline that contact had been lost with Flight 77. Shortly thereafter, American Airlines dispatchers made the first of several unsuccessful attempts over three minutes to contact Flight 77, using the ACARS email system to advise the flight crew to contact the Indianapolis Air Traffic Control Center.²⁴⁹

9:00 A.M. American Airlines Executive Vice President Gerard Arpey learned that communication had been lost with Flight 77. He ordered all American Airlines flights in the Northeast that had not taken off to remain on the ground.²⁵⁰

Also at 9:00 A.M., Flight 77 headed east and shortly thereafter began to descend.²⁵¹

9:02 A.M. The FAA's air traffic controllers told American Airlines that they did not know the location of Flight 77 and were unable to contact it.²⁵² **Three minutes later**, American began lockout procedures to protect information about the flight.²⁵³

9:05 A.M. Flight 77 re-emerged as a primary target on Indianapolis Center radar scopes, well east of its last known position.²⁵⁴ However, the aircraft was not detected by air traffic controllers because they were searching along its projected flight path to the west and southwest.

At *approximately* 9:07 A.M., Flight 77 leveled off at 25,000 feet and made a slight course change to the east-northeast.²⁵⁵

By 9:08 A.M., officials in American Airlines' SOC had concluded that the second aircraft to hit the World Trade Center might have been Flight 77.²⁵⁶

9:08 A.M. The FAA's Indianapolis Center contacted Air Force Search and Rescue in Langley, Virginia, to request that they be on the lookout for an accident involving Flight 77 because of the simultaneous loss of radio communications and all radar contact.²⁵⁷

9:09 A.M. Indianapolis Center called the FAA Great Lakes Regional Office to notify it of a possible accident involving American 77.²⁵⁸

At some time *between 9:00 A.M. and 9:10 A.M.*, an American Airlines air traffic control specialist at SOC who was in communication with the Herndon Command Center notified SOC air traffic control manager that he had learned United was "missing a plane." American headquarters extended its ground stop nationwide.²⁵⁹

9:11 A.M. Renee May, a flight attendant, attempted to call her parents but the call did not connect. A second call to the same number at **9:12 A.M.** did go through.²⁶⁰ In the conversation, May told her mother that her flight was being hijacked by six individuals who had moved them—the mother was not sure whether her daughter meant all the passengers or just the crew—to the rear of the plane. May asked her mother to call American Airlines and make sure that they knew about the hijacking, giving her three phone numbers in Northern Virginia to call.

At some point *between 9:12 A.M. and the crash of Flight 77 into the Pentagon (9:37:46 A.M.)*, Renee May's parents reached an American Airlines employee at Reagan National Airport in Washington, D.C., giving her the information provided by their daughter, including her phone number on board and the flight number.²⁶¹ Initially, the American employee thought the Mays were talking about the aircraft that had crashed into the World Trade Center. May's mother reiterated that she was speaking of Flight 77, still in the air. At some point after completing the call, the American employee was told to evacuate the building. On her way out, she heard explosions from the direction of the Pentagon, though she was not sure that it was the crash of an aircraft. She informed a flight services manager at the airport about her conversation with May's parents.²⁶²

Around 9:15 A.M., after confirming that two airliners had struck the World Trade Center American ordered all of its airborne flights to land.²⁶³

9:16 A.M. An American Airlines air traffic control specialist phoned an official at the Herndon Command Center to inquire about the status of New York City air traffic. Over the course of this conversation, which lasted two and a half minutes, the specialist said that American "thought" Flight 11 had crashed into the World Trade Center. Flight 77, he said, was "missing." As he made his report, he received an update from American's SOC indicating that Flight 77 also might have crashed into the towers. He updated the ATC official but wondered how Flight 77 could have gotten to New York City. The ATC official replied that the second crash might not have been Flight 77 because "we [ATC] have another call sign" for that incident. At that point, though, the Herndon Command Center was not sure of the identity of either of the two crashed aircraft and provided no further information.²⁶⁴

At some point *between 9:16 A.M. and 9:26 A.M.*²⁶⁵ Barbara Olson, a Flight 77 passenger, called her husband, Ted Olson, the solicitor general of the United States. Olson spoke to his wife for about one minute before the call was cut off.²⁶⁶ She reported that the flight had been hijacked and the hijackers were wielding knives and box cutters. She did not mention stabbing or slashing of the crew or passengers. The hijackers, she said, were not aware of her phone call. All of the passengers were in the back of the plane. Barbara Olson had been seated in first class.²⁶⁷

After this call, Ted Olson tried unsuccessfully to reach Attorney General John Ashcroft. He contacted the Department of Justice Command Center and requested that they send someone to his office.²⁶⁸ He also told the Department of Justice Command Center that his wife's flight had been hijacked and gave them the flight number.

By no later than *9:18 A.M.*, FAA centers in Indianapolis, Cleveland, and Washington were aware that Flight 77 was missing and that two aircraft had struck the World Trade Center.²⁶⁹

By *9:20 A.M.*, Indianapolis Center learned that there were other hijacked aircraft in the system, and began to doubt its initial assumption that Flight 77 had crashed.²⁷⁰ A discussion of this concern between the manager at Indianapolis and the Herndon Command Center prompted the Command Center to notify some FAA field facilities that Flight 77 was lost.

*Between 9:20 A.M. and 9:31 A.M.*²⁷¹ Barbara Olson again called her husband. During their second conversation, she reported that the pilot had announced that the flight had been hijacked and she asked her husband what she should tell the captain to do. Ted Olson asked for her location. She said that the aircraft was flying over houses. Another passenger told her they were traveling northeast. Ted Olson informed his wife of the two previous hijackings and crashes, but she did not display signs of panic or indicate any awareness of an impending crash. The call abruptly ended.²⁷²

By *9:21 A.M.*, the Herndon Command Center, some FAA field facilities, and American Airlines had started to search for Flight 77. They feared it had been hijacked.²⁷³

9:21 A.M. Herndon Command Center advised a supervisor at the Dulles Terminal Radar Approach Control (TRACON) facility that the FAA had lost contact with Flight 77 and was trying to find the aircraft. Controllers at Dulles TRACON were advised that a commercial aircraft was missing and instructed to look for primary targets.²⁷⁴

9:24 A.M. The FAA's Great Lakes Regional Office notified the agency's headquarters in Washington, D.C., that Flight 77 might have been involved in an accident.²⁷⁵

9:25 A.M. Herndon Command Center advised FAA headquarters that Flight 77 was lost in Indianapolis Center's airspace. It could not be located on radar.²⁷⁶

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Also at 9:25 A.M. Ben Sliney, the Herndon Command Center National Operations Manager, ordered a "nationwide ground stop," which prevented any aircraft from taking off in the United States.²⁷⁷

9:29 A.M. Flight 77 was now flying at 7,000 feet and was approximately 38 miles west of the Pentagon.²⁷⁸

At or shortly after 9:32 A.M., controllers at the Dulles TRACON "observed a primary radar target tracking eastbound at a high rate of speed," and notified Reagan National Airport of the approaching aircraft. This was later determined to have been Flight 77.²⁷⁹

9:34 A.M. Flight 77 was 5 miles west-southwest of the Pentagon. It began a 330-degree right turn. At the end of the turn, the plane descended through 2,200 feet pointed toward the Pentagon and downtown Washington D.C.²⁸⁰

Also at 9:34 A.M. NEADS Identification Technicians who, at 9:21 A.M., had been told by Boston Center that Flight 11 was still airborne and heading south, contacted the Operations Manager at Washington Center to provide an update on the evolving situation. In the course of the conversation, the Operations Manager informed NEADS that Flight 77 was lost.²⁸¹ He did not inform NEADS that it was hijacked because he did not know. This discussion was the first notice to the military that Flight 77 was missing, and it had come by chance.²⁸² If NEADS had not placed that call to Washington Center, the NEADS air defenders would have received no information whatsoever that Flight 77 was even missing.

Also at 9:34 A.M., an update by the American Airlines SOC indicated that Flights 11 and 77 had been the aircraft that crashed into the World Trade Center.²⁸³

At approximately 9:36 A.M., Reagan Airport controllers then vectored an unarmed National Guard C-130H cargo aircraft, which had just taken off en route to Minnesota, to identify and follow the primary target identified by Dulles TRACON. The C-130H pilot spotted it, identified it as a Boeing 757, and attempted to follow its path.²⁸⁴

9:36 A.M. The FAA's Boston Center – which had learned of the unidentified primary radar target tracking eastbound via an FAA conference call line – called NEADS and relayed the report of the aircraft closing in on Washington. The aircraft that still had not been linked with the missing Flight 77. Boston Center told NEADS: "Latest report. Aircraft VFR [Visual Flight Rules] six miles southeast of the White House...Six, southwest. Six, southwest of the White House, deviating away."²⁸⁵ This startling news prompted the Mission Crew Commander at NEADS to order "AFIO" (Authorization for Interceptor Operations), which entailed taking immediate control of the Langley fighters from the FAA. He then ordered the fighters to proceed directly towards Washington DC: "Okay, we're going to turn it...crank it up...Run them to the White House."²⁸⁶

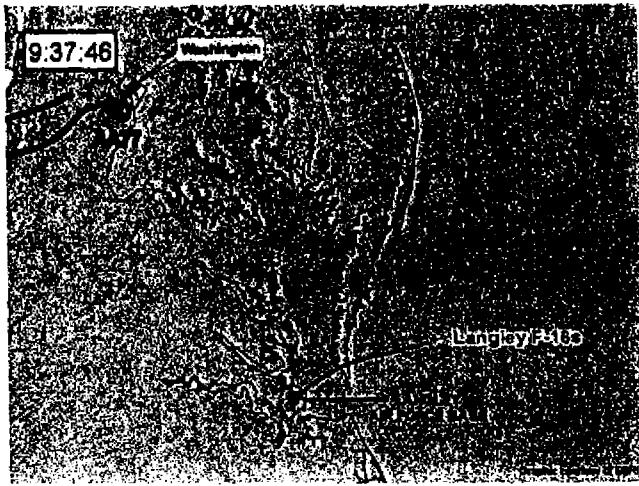
Shortly after 9:36 A.M., the Mission Crew Commander at NEADS discovered, to his surprise, that the Langley fighters were not headed north as the scramble order had

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instructed, but east over the ocean. His response was emotional, "I don't care how many windows you break," he said, "Damn it...Okay. Push them back."²⁸⁷

9:37:46 A.M., American Airlines Flight 77 crashed into the Pentagon. The aircraft was traveling at approximately 530 miles per hour on impact.²⁸⁸ All on board were killed, along with 125 civilian and military personnel in the Pentagon.²⁸⁹ The Langley fighters were approximately 150 miles away.

At approximately **9:38 A.M.**, the C-130H aircraft reported to Reagan Airport controllers that the aircraft it was attempting to follow crashed into the Pentagon.²⁹⁰



9:42 A.M. American's director of safety programs,²⁹¹ who happened to be in Washington, DC at the time, confirmed for American Airlines officials that "something has hit the Pentagon."²⁹²

Also at **9:42 A.M.**, the Herndon Command Center learned from news reports that a plane had struck the Pentagon. The Command Center's national operations manager, Ben Sliney, ordered all FAA facilities to instruct all aircraft to land at the nearest airport. This was an unprecedented order. The air traffic control system handled it with great skill, as about 4,500 commercial and general aviation aircraft soon landed without incident.²⁹³

9:45 A.M. An official at American headquarters called United headquarters to inform them that an aircraft had hit the Pentagon and that American believed it was a U.S. Airways turbojet.²⁹⁴

At approximately **10:00 A.M.**, the Langley fighters established a Combat Air Patrol (CAP) over Washington, DC.

By no later than 10:30 A.M., American confirmed that Flight 77 had crashed into the Pentagon.²⁹⁵

1.4 UNITED AIR LINES FLIGHT 93

Hijackers: Ziad Samir Jarrah (pilot); Saeed al Ghamdi; Ahmed al Nami; Ahmad al Haznawi.

Hijacker Weapon Purchases. Personal financial records do not reflect weapons purchases by any of the hijackers. However, the FBI recovered 14 knives or portions of knives, including a box cutter, at the Flight 93 crash site.

Hijacker Arrival at Airport and Check-in. At 7:03 A.M., Saeed al Ghamdi checked in at the United Air Lines ticket counter at Newark airport but checked no baggage. Ahmed al Nami checked two bags. At 7:24 A.M., Ahmad al Haznawi checked a single bag. Finally, at 7:39 A.M., Ziad Jarrah checked in at the UAL ticket counter; he did not have any luggage.²⁹⁶

Hijacker Prescreening. Only Ahmad al Haznawi was selected by CAPPS. His checked bag was screened for explosives and then loaded on the plane after confirmation that Haznawi was on board.²⁹⁷

Checkpoint Security Screening. Because Newark Airport, like Logan in Boston, did not use video cameras to monitor activities at security checkpoints, we could not establish with certainty how the five hijackers were processed when they passed through security screening.

To reach their departure gate, after checking in, the hijackers had to pass through a single checkpoint that serviced United Air Lines flights from the concourse from which Flight 93 departed. The checkpoint was the custodial responsibility of United Air Lines and operated under contract by Argenbright Security. The FAA interviewed each of the screeners on duty at the checkpoint, and none of them reported anything unusual or suspicious.²⁹⁸

Hijacker Boarding. At 7:39 A.M., Haznawi and Ghamdi boarded the aircraft. Haznawi sat in 6B (first class) and Ghamdi in 3D (first class). At 7:40 A.M., Nami boarded and sat in 3C (first class). At 7:48 A.M., Jarrah boarded and sat in 1B (first class).²⁹⁹

Flight Profile. In September 2001 and during certain other periods earlier in the year, United Air Lines Flight 93 provided daily, nonstop service from Newark (Liberty) International Airport in New Jersey to San Francisco International Airport.³⁰⁰ On September 11, it was scheduled for an 8:00 A.M. departure.³⁰¹ The aircraft was a Boeing 757. Tail number N591UA.

The plane was piloted by Captain Jason Dahl and First Officer Lee Roy Homer. Five flight attendants provided cabin services:

- Chief flight attendant Deborah Welsh, assigned to seat seat J1 in first class;
- Sandra Bradshaw, assigned to seat J5 in coach;
- Wanda Green, assigned to seat J4 in first class;

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- Lorraine Bay, assigned to seat J3 in coach; and
- CeeCee Lyles, assigned to seat J6 in coach.³⁰²

On September 11, 2001, the flight carried 37 passengers (including 4 hijackers) with two pilot and 5 flight attendants for a total of 44 people on board.

Ten passengers were seated in first class, including all four of the hijackers; the other 27 were in coach. There was no business class on Flight 93.³⁰³

The 37 passengers (including the four hijackers) represented a load factor of 20 percent of the plane's passenger capacity of 182. This figure is considerably below the 52 percent average load factor for Flight 93 for Tuesdays in the three-month period prior to September 11; indeed, it represents the lowest load factor among these flights during that time span.³⁰⁴ In this three-month period, Tuesdays were the least traveled day for Flight 93.³⁰⁵

There is no evidence that Flight 93 hijackers purchased additional tickets for the flight beyond the ones they used.³⁰⁶ As on the other three flights, all the hijackers were accounted for in checking in and boarding the flight, and according to United's records, no paperwork was filed to indicate that any cockpit jump seat was occupied by anyone other than flight crew.³⁰⁷ Thus, there is no evidence to suggest that any hijacker was admitted into the cockpit and permitted to sit in a jump seat prior to the takeover.

On Flight 93, the cockpit key was kept in a storage compartment in the front of the airplane. It was United Air Lines' policy at the time not to provide individual flight attendants with a key to the cockpit door.³⁰⁸

Flight 93 was loaded with 48,700 pounds of fuel, which was a normal amount for the flight.³⁰⁹

The Flight. At 8:00 A.M., Flight 93 pushed back from gate 17A at Newark Airport and taxied to its departure area. Because of typical local air traffic congestion, the flight was delayed 42 minutes.³¹⁰ It remained in a holding status until 8:42 A.M., when it departed.³¹¹

9:02 A.M. The flight reached its cruising altitude of 35,000 feet.³¹² Under normal circumstances, the pilot would turn off the seatbelt sign once the aircraft reached cruising altitude, usually about 20 minutes into the flight.³¹³

Upon commencement of cabin service, it is likely that flight attendants Deborah Welsh and Wanda Green would have worked in first class, while Lorraine Bay, CeeCee Lyles, and Sandra Bradshaw would have been in coach.³¹⁴

Beginning at 9:03 A.M., several dispatchers sent ACARS messages to several United flights indicating that aircraft had crashed into the World Trade Center. These messages provided no details or warnings, however.

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9:08 A.M. Ballinger, the United flight dispatcher, began to send out ACARS messages notifying United's transcontinental flights that had not yet taken off that a ground stop had been ordered for commercial aircraft in the New York area.³¹⁵

At **9:19 A.M.**, shortly after he became aware of the second crash into the World Trade Center, Ballinger began sending cockpit warnings via text messages to the 16 transcontinental flights under his jurisdiction, including Flight 93. The messages were sent out in groups; Flight 93 received its message several minutes later.³¹⁶ This represented the first occasion on 9/11 when either American or United sent out such a warning to their airborne aircraft.

9:21 A.M. Ballinger received a routine ACARS message from the aircraft: "Good mornin' . . . Nice clb [climb] outta EWR [Newark airport] after a nice tour of the apt [apartment] courts y [and] grnd cntrl. 20 N EWC At 350 occl [occasional] lt [light] chop. Wind 290/50 ain't helping. J." The last notation was presumably the signature for Captain Jason Dahl, who was personally acquainted with the dispatcher.³¹⁷

Also at **9:21 A.M.**, the UAL air traffic control coordinator sent out a message to UAL dispatchers: "There may be Addnl hijackings in progress. You may want to advise your flts to stay on alert and shut down all cockpit access Inflt. [inflight] Sandy per Mgmt."³¹⁸

9:22 A.M. An ACARS text message was sent to First Officer LeRoy Homer at the request of his wife, who was concerned about her husband after hearing about the attacks on the World Trade Center.³¹⁹

9:23 A.M. Ballinger sent an ACARS message to Flight 93's flight deck: "Beware any cockpit intrusion—Two a/c [aircraft] hit World Trade Center." This was the same message the dispatcher had begun transmitting to the airline's transcontinental flights at 9:19 A.M. in response to information United headquarters had received about the hijacking of Flight 175 and the events at the World Trade Center.³²⁰

After reporting experiencing some "light chop" at 35,000 feet, Flight 93 was handed off to Cleveland Air Traffic Control Center (Cleveland Center).³²¹ Several seconds later, Flight 93 established radio contact with Cleveland Center: "Morning Cleveland, United Ninety-three with you at, three-five-oh (35,000 feet), intermittent light chop."³²² The controller did not respond to this initial transmission as he had sixteen flights under his control, and was issuing new routes to several aircraft based upon the decisions in New York and Boston to ground-stop all aircraft.³²³

9:25 A.M. Flight 93 again radioed Cleveland Center, checking in at 35,000 feet. The controller replied, "United ninety-three, Cleveland, roger."³²⁴

At approximately **9:25 A.M.**, FAA headquarters requested the Herndon Command Center to "get an awareness up to all the traffic management coordinators or the traffic management units to report any unusual circumstances direct to the Command Center of loss of identification, or any radio, uh, any unusual radio transmissions."³²⁵

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9:26 A.M. The Cleveland controller handling Flight 93 engaged in conversations with several aircraft about the evolving “serious” situation in New York City and the prospects for flights to be allowed to land in Philadelphia.³²⁶

Also at 9:26 A.M., Flight 93 asked for confirmation of the ACARS message sent at 9:23 A.M. and received in the cockpit at 9:24 A.M. “Ed cofirm latest mssg plz—Jason.”³²⁷

9:27 A.M. The Flight 93 flight crew responded to routine radio contact from the FAA air traffic control center in Cleveland. This was the last communication from the flight’s cockpit crew.³²⁸

The Hijacking. At 9:28 A.M., the hijackers began their takeover of the aircraft. They wielded knives (reported by at least five callers); engaged in violence, including stabbing (reported by at least four callers and indicated by the sounds of the cockpit struggle transmitted over the radio); relocated the passengers to the back of the plane (reported by at least two callers); threatened use of a bomb, either real or fake (reported by at least three callers); and engaged in deception about their intentions (as indicated by the hijacker’s radio transmission received by FAA air traffic control).

9:28 A.M. The aircraft was traveling 35,000 feet above eastern Ohio. It suddenly began to descend, dropping 685 feet over the next half minute. Eleven seconds into the descent, Cleveland Center overheard the first of two radio transmissions from the Flight 93 cockpit. The captain or first officer declared “Mayday” amid sounds of a physical struggle in the cockpit.³²⁹ While the controller did not understand what was said, he began to try to identify the possible source of the transmissions and noticed Flight 93’s rapid descent. The Cleveland controller replied over the radio: “Somebody call Cleveland?”³³⁰ There was no reply.

The second radio transmission, 35 seconds later, indicated that the clash was still in progress. The captain or first officer shouted: “Hey get out of here—get out of here—get out of here.”³³¹ The screaming in this second radio transmission was heard by the Cleveland controller responsible for Flight 93.³³²

While this appears to show the exact time that the hijackers invaded the cockpit, we have found no conclusive evidence to indicate precisely when the terrorists took over the main cabin or moved passengers seated in the first-class cabin back to coach—a tactic reported by several passengers during phone calls to parties on the ground. We believe that it is most likely that the four hijackers breached the cockpit at the same time that they took over the front of the plane and pushed passengers back into the coach cabin. Taking over the cabin first would likely have alerted the flight deck to a problem, and waiting to control or move passengers once the cockpit was secured would have increased the risk of passenger intervention, particularly if the passengers had witnessed the hijackers displacing the crew from the controls.

The terrorists who hijacked the three other commercial flights on 9/11 operated in five-

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man teams. They initiated their cockpit takeover operations within 30 minutes of takeoff, most likely after the seatbelt sign had been turned off and the flight attendants were beginning cabin service. On Flight 93, however, there were only four hijackers. They waited approximately 46 minutes after takeoff to begin their assault. We were unable to determine why they waited so long.

At approximately 9:30 A.M., air traffic control informed United headquarters that Flight 93 was not responding to attempted radio contacts.³³³

9:30 A.M. The Cleveland controller began to poll the other flights on his frequency to determine if they heard the screaming; several said they had.³³⁴

At approximately 9:31 A.M., the National Traffic Management Officer on duty at the Herndon Command Center relayed to air traffic control facilities (including Cleveland Center) the request from FAA Headquarters to report any unusual circumstances to the Command Center.

9:31 A.M. United dispatchers were advised by United headquarters officials that there was a potential problem with Flight 93. The airline's air traffic control coordinator and another employee each sent an ACARS message to the flight asking it to establish radio contact with air traffic control. There was no response to these or any subsequent ACARS messages.³³⁵

9:32 A.M.³³⁶ The Cleveland controller overheard a transmission of threatening language from Flight 93: "Ladies and Gentlemen: Here the captain, please sit down keep remaining sitting. We have a bomb on board. So, sit." The cockpit voice recording also indicates that a woman, most likely a flight attendant, was being held captive in the cockpit. Moments after hearing the threatening transmission from Flight 93, Cleveland Center reported to the Herndon Command Center that the flight may have a bomb on board.³³⁷

Also at **9:32 A.M.**, Ballinger began sending a new ACARS message ("High security alert. Secure cockpit.") to his flights. This communication was transmitted to Flight 93 at **9:33 A.M.**³³⁸

9:34 A.M. Herndon Command Center relayed the reports it had received on Flight 93 to FAA headquarters.

Between **9:34 A.M.** and **9:38 A.M.**, the Cleveland controller observed Flight 93 climbing to 40,700 feet and immediately moved several aircraft out of its way. The controller continued to try to contact Flight 93, and asked whether the pilot could confirm that he had been hijacked.³³⁹ There was no response. As the flight continued to climb, the controller moved decisively to clear the other flights in his sector from Flight 93's path.

Additionally, between **9:34 A.M.** and **10:08 A.M.**, a Herndon Command Center facility manager provided several updates to the FAA Deputy Administrator and other executives at the agency's headquarters as Flight 93 approached the Washington, DC area.

At approximately 9:36 A.M., Cleveland Center advised the Herndon Command Center that they were still tracking Flight 93 and inquired specifically whether someone had requested the military to launch fighter aircraft to intercept the flight. They added that they were prepared to contact a nearby military base to request fighter aircraft assistance. The Command Center told Cleveland Center that FAA personnel above them in the chain of command had to make the decision to request military assistance.³⁴⁰

9:36 A.M.³⁴¹ A flight attendant contacted the United Air Lines maintenance facility in San Francisco. (The same facility that the flight attendant aboard United 175 had called to report the hijacking of that flight). The San Francisco phone number is one that flight crews know to call in order to report mechanical and systems problems, obtain advice on troubleshooting, and request maintenance while in flight. Her call was first answered by a United maintenance employee and was subsequently taken over by a manager at the facility. The manager described the flight attendant as "shockingly calm." The flight attendant, reporting from the back of the plane, told the maintenance employees that hijackers were in the cabin behind the first-class curtain and in the cockpit. They had announced they had a bomb on the plane. The hijackers had pulled a knife. They had killed a flight attendant. The manager reported the emergency to his supervisor, who passed the information to the United Air Lines crisis center. The manager then instructed the air phone operator to try and reestablish contact with the plane, but the effort was unsuccessful.³⁴²

This began a series of calls from the flight that provided vital information both to the ground and to the passengers. At least two callers from the flight reported that the hijackers knew that passengers were making calls but did not seem to care. The cockpit voice recorder does not provide evidence of whether Jarrah, the pilot, was aware of these calls or indicate why the hijackers allowed them to take place.

At least ten passengers and two crew members shared vital information with family, friends, colleagues, or others on the ground, including:³⁴³ the plane had been hijacked; the hijackers wielded knives; the hijackers had entered the cockpit; the hijackers had a bomb; hijackers wore red bandanas; passengers were forced to the back of the aircraft; a passenger had been stabbed (reported by at least two callers), and the victim had died (reported by one); two individuals were lying on the floor of the aircraft injured or dead, possibly the captain and first officer; and a flight attendant had been killed.

The calls provided information very similar to that received from the other hijacked aircraft, including the hijackers' use of knives, violence, the threat of a bomb, relocation of passengers to the back of the aircraft and cockpit intrusion. There is, of course, no means of ascertaining the location of callers who were using cellular phones inside the aircraft. However, calls were made from air phones installed in the last nine rows of the aircraft. The air phone system aboard the flight limited to eight the number of calls that could be made at one time.³⁴⁴

9:36 A.M. Flight 93 reversed course and headed east. The hijackers struggled to control a defiant hostage, most likely a flight attendant in the cockpit, eventually killing or otherwise silencing her.³⁴⁵

Also at **9:36 A.M.**, the United manager of flight dispatch operations advised Ballinger that Flight 93 was "off track, heading for D.C."³⁴⁶ By this point, United headquarters believed the aircraft had been hijacked.³⁴⁷ Another UAL dispatcher, assisting Ballinger, sent an ACARS message to Flight 93, asking, "How's the wx.(?) Can dispatch be of any assistance?",³⁴⁸

9:37 A.M. A passenger called his mother. He told her that he was on United Air Lines Flight 93 and it was being hijacked; that the plane had been taken over by three guys, and that they said they have a bomb.³⁴⁹

One of the key mysteries associated with Flight 93 is that at least five passengers described the presence of three hijackers on the plane, rather than the four who were actually aboard.³⁵⁰ Some have wondered whether such reporting might suggest that one of the hijackers was positioned in the cockpit from the outset of the flight and remained unseen by the passengers. FAA rules allowed commercial air carriers to permit properly credentialed and approved individuals, usually air carrier personnel such as pilots or operational personnel, to ride in the cockpit jump seat (located directly behind the pilot and first officer).³⁵¹

We cannot know with certainty whether a hijacker had gained access to the cockpit prior to the violent takeover of the aircraft, but we believe it unlikely that a hijacker occupied the jump seat prior to the takeover. All four of Flight 93's hijackers were issued tickets for seats in the first-class cabin and used their tickets to enter the aircraft. None of the paperwork required by United Air Lines to authorize a jump seat occupant for Flight 93 had been filed.³⁵²

One of the passengers who contacted a party on the ground reported that ten first-class passengers were on the flight. This figure is consistent with the four terrorists and the six nonhijackers who boarded the aircraft holding tickets for first-class seats.³⁵³

Five of the six nonhijacker passengers in first-class seats contacted the ground by phone to share information about the hijacking.³⁵⁴ These individuals would have been best positioned to observe whether a passenger among them had gotten up during the flight and entered the cockpit before the violent takeover of the aircraft. None of the callers reported the occurrence of such an event. Moreover, the pilot and co-pilot of Flight 93 were experienced, well-regarded professionals, unlikely to allow any observer into the cockpit, pre- or post-takeoff, who had not obtained the permission needed for such privileges.³⁵⁵

Finally, the pilot hijacker was the critical link in the terrorist operation. It is reasonable to expect that the hijackers would take all precautions necessary to protect the one among them required to fly the plane. Given their unwillingness to risk his death or injury during

to shoot down targets and that their tasking was to identify aircraft by type and tail number.³⁹¹

At approximately **10:11 A.M.**, as the news of a bomb on board Flight 93 spread throughout the floor, the Mission Crew Commander tried to locate fighter assets to scramble toward the plane. He established contact with an Air National Guard Unit in Syracuse, New York to expedite launching aircraft to respond to Flight 93. The Syracuse unit reported that it would be able to launch fighters with loaded guns (no missiles) in "approximately 15 minutes."³⁹²

10:13 A.M. The Herndon Command Center advised FAA headquarters of its conclusion that Flight 93 had crashed.³⁹³

10:15 A.M. NEADS contacted Washington Center to provide them with an update on the situation with Flight 93, only to be informed by the center that Flight 93 had crashed.³⁹⁴ By this same time, United headquarters had confirmed that an aircraft had crashed near Johnstown, Pennsylvania, and believed that this was Flight 93.³⁹⁵

10:17 A.M. An operational alert message was sent out to United Air Lines personnel from Andy Studdert: "UAL 93-11 EWR-SFO has been involved in an accident. Crisis Center has been activated."³⁹⁶

10:27 A.M. United Air Lines advised American Airlines of the crash of Flight 93.³⁹⁷

10:31 A.M. NEADS received its first official ROE for their fighters (via a NORAD instant messaging system) stating that the Vice President had authorized the military to shoot down tracks that did not respond to their direction.³⁹⁸ The NEADS air defenders expressed considerable confusion over the nature and effect of this specific ROE in interviews with Commission staff.³⁹⁹ Indeed, Colonel Marr indicated to staff that he actually believes he withheld the ROE from the NEADS floor for several minutes because he was unsure of its ramifications,⁴⁰⁰ while both the Mission Crew Commander and the Weapons Director indicated that they withheld the order from the pilots flying Combat Air Patrol over Washington, DC and New York City because they were unsure how the pilots would or should proceed with such guidance.⁴⁰¹

1.5 HIJACKER TACTICS

Flight Selection. The hijackers strategically planned the flights they chose—early morning departures from East Coast airports aboard large Boeing 757 and 767 for which they had trained. The planes carried large amounts of fuel for their transcontinental flights, maximizing the destructive power of the crash.

Ticket Purchase and seating. Each of the hijackers purchased a ticket between mid- and late August. There is no evidence to suggest that the hijackers or their associates purchased unused tickets for the hijacked flights. The seats selected by each hijacker

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the takeover of the aircraft, it made operational sense for the pilot hijacker to remain seated and inconspicuous until he was needed, most likely after the cockpit had been seized.

9:37 A.M. A passenger made the first of several calls to his wife. During these calls, he reported that: the plane had been hijacked; the hijackers claimed to have a bomb; and a passenger had been knifed. He thought one of them had a gun. He didn't think they had a bomb because he couldn't see it. The passenger asked his wife if she had heard about any other planes. His wife informed him about the World Trade Center. The passenger asked if the planes that crashed into the towers were commercial.

In one of the later calls to his wife, the passenger reported that the passenger that had been knifed had died; that "they" were in the cockpit; and that a group of passengers were getting ready to do something.³⁵⁶

Between **9:37 A.M. and 9:57 A.M.**, a passenger was in contact his wife and his mother-in-law, who immediately called 911 on her cell phone. The passenger told his family that Flight 93 had been hijacked by three "Iranian-looking" males, with dark skin and bandanas; one of the males stated that he was in possession of a bomb in a red box and one was armed with a knife; the captain had not made any announcements; the hijackers had herded the passengers into the rear of the plane; the three hijackers had entered the cockpit. He and other passengers were contemplating "rushing" the hijackers; he did not observe any guns in the possession of the hijackers; the passengers were voting on whether to storm the cockpit and retake control of the airplane.³⁵⁷

9:39 A.M. The Cleveland Center controller overheard the following radio transmission from Flight 93: "Uh, is the captain. Would like you all to remain seated. There is a bomb on board and are going back to the airport, and to have our demands [unintelligible]. Please remain quiet."³⁵⁸

It is quite possible Jarrah knew that the attacks on the World Trade Center had succeeded. Text messages sent by United Air Lines to the cockpits of its transcontinental flights, including Flight 93, warned of possible cockpit intrusion and told of the attacks in New York.³⁵⁹ But even if Jarrah had not read these messages, he must have understood, given Flight 93's tardy departure from Newark, that the attacks on the World Trade Center would already have unfolded. If he knew that the passengers were making calls, he must have failed to understand that they were sure to learn of the New York attacks and would immediately see through his ruse that the aircraft was simply "returning to the airport."

9:39 A.M. A passenger called her husband and left a message that the flight had been hijacked.³⁶⁰

9:40 A.M. The United air traffic control coordinator for West Coast flights notified the Herndon Command Center that Flight 93 was not responding to the airline's attempts to contact it. It was also off course.³⁶¹

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9:40 A.M. As he continued to update his 9:32 A.M. "secure cockpit" message to his flights, Ballinger sent the following ACARS transmission to Flight 93: "High security alert. Secure cockpit. Two airliner hit NY Trade Center. And 1 aircraft in IAD missing. And one in EWR missing . . . too. UAL 175/93 missing." At **9:41 A.M.**, the dispatcher sent the same message to Flight 93, with the following addition at the end: "UAL 175/93 found."³⁶²

9:41 A.M. The transponder on the plane was turned off.³⁶³ The Cleveland controller located the aircraft on primary radar, and matched his reading with visual sightings from other aircraft to follow the Flight 93 as it turned east and, ultimately, south.³⁶⁴

9:41 A.M. The Herndon Command Center notified headquarters that Flight 93 had reversed course from its intended flight path and was descending and heading eastbound.³⁶⁵

9:42 A.M. While Command Center employees informed FAA field facilities of the order to land all aircraft, one of the Command Center managers continued to give FAA headquarters several updates on the progress and location of Flight 93.

9:43 A.M. A passenger contacted his father to inform him that his flight had been hijacked.³⁶⁶

9:44 A.M. A passenger contacted GTE air phone operators. His connection lasted for the remainder of the flight. He noted the following: The flight had been hijacked, and the captain and first officer were lying on the floor of the first-class cabin and were injured or possibly dead. One of the hijackers had a red belt with a bomb strapped to his waist. Two of the hijackers, who had knives, entered the cockpit and closed the door behind them. At some point the hijackers closed the curtain between first class and coach so that passengers could not see into first class; those in the rear of the plane were not being monitored by the hijackers. The plane was going up and down and had turned or changed direction. He and some other passengers were planning something and he was going to put the phone down.

At some point *between 9:45 A.M. and 9:50 A.M.*, the United station operations control manager received a report from the San Francisco maintenance office about the call from the Flight 93 flight attendant advising that the aircraft had been hijacked. He immediately passed this information on to Ballinger and the crisis center. He also attempted to initiate a lockout of Flight 93. The United computer system, however, was not set up at that time to deal with two such procedures simultaneously³⁶⁷—and United had already effected a lockout of Flight 175.

9:46 A.M. A United employee at the maintenance facility in San Francisco sent the following ACARS message to Flight 93: "Heard report of incident. Plz confirm all is normal."

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9:55 A.M. The pilot hijacker, presumably Jarrah, dialed into the flight computer the navigational code for Reagan National Airport, in order to fly the aircraft toward Washington, D.C.³⁷⁶

An air phone operator, who had been on the line with a passenger since 9:44 A.M., heard someone say: "Are you guys ready? Okay! Let's roll!" Shortly thereafter she heard screaming followed by silence.³⁷⁷

9:56 A.M. Herndon Command Center informed FAA headquarters they lost track of Flight 93 over the Pittsburgh area.³⁷⁸ Within seconds, the Command Center relocated Flight 93 and informed headquarters.

The Flight attendant who had called her husband at 9:50 A.M. ended her phone call. She said, "Everyone is running up to first class. I've got to go. Bye." She hung up the phone.³⁷⁹

9:57 A.M. The passengers began their revolt. The sounds of the passenger uprising captured by the cockpit voice recorder suggest that a great struggle began at the back of the airplane and progressed toward the front. The evidence from the CVR indicates that the struggle continued for the duration of the flight.³⁸⁰

9:58 A.M. A passenger called 911 in Westmoreland County, Pennsylvania, from his cell phone to report a hijacking in progress.³⁸¹

Also at 9:58 A.M., a flight attendant contacted her husband by cell phone. She told him again that the plane had been hijacked and they were forcing their way into the cockpit.³⁸²

In response to the passenger revolt, Jarrah immediately began to roll the airplane to the left and right, attempting to knock the passengers off balance. At 9:58:57, Jarrah told another hijacker in the cockpit to block the door. Jarrah continued to roll the airplane sharply left and right, but the assault continued.

At 9:59:52, Jarrah changed tactics and pitched the nose of the airplane up and down to disrupt the assault. The recorder captured the sounds of loud thumps, crashes, shouts, and breaking glasses and plates. At 10:00:03, Jarrah stabilized the airplane.³⁸³

Five seconds later, Jarrah asked, "Is that it? Shall we finish it off?" A hijacker responded, "No. Not yet. When they all come, we finish it off." The sounds of fighting continued outside the cockpit. Again, Jarrah pitched the nose of the aircraft up and down. At 10:00:26, a passenger in the background said, "In the cockpit. If we don't we'll die!" Sixteen seconds later, a passenger yelled "Roll it!"

At this same time, Herndon Command Center advised FAA headquarters that "United ninety three was spotted by a VFR at eight thousand feet, eleven, eleven miles south of Indianhead, just north of Cumberland, Maryland.³⁸⁴

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Also at 9:46 A.M., a passenger contacted her sister and left a voice mail message: her flight had been hijacked by terrorists and they said they had a bomb; she knew that terrorists had already flown a couple of planes into the World Trade Center; it looked like they were going to take this one down as well.³⁶⁸

Also at 9:46 A.M. the Herndon Command Center updated FAA headquarters that Flight 93 was tracking towards Washington, DC and was 29 minutes away from the city.³⁶⁹

9:48 A.M. A flight attendant called her husband, using an air phone, and left a message: the aircraft had been hijacked; there were three hijackers; the plane had turned around; and she'd heard that planes had flown into the World Trade Center.³⁷⁰

9:49 A.M. A passenger called her boyfriend: her plane was hijacked; the hijackers had cut two passengers' throats; she knew that two planes had crashed into the WTC.³⁷¹

9:49 A.M. Thirteen minutes after initially questioned by Cleveland Center about getting military help, Herndon Command Center suggested to FAA headquarters that someone should decide whether to request military assistance.³⁷²

9:50 A.M. Ballinger continued to send ACARS messages to the airline's transcontinental flights, including Flight 93, advising them to "land ASP at nearest UAL airport—ORD terrorist. No one in to cockpit—Land asp." He sent a second message advising the aircraft to land anywhere as soon as possible. He sent the same message again one minute later.³⁷³

9:50 A.M. A flight attendant called her husband to report the emergency. The call lasted approximately eight minutes. She seemed to be aware of the other hijackings that morning. Her husband told her he was watching the television and confirmed to her that two planes had crashed into the World Trade Center. The flight attendant told her husband that the plane had been hijacked by three men. She said the hijackers were carrying knives and had put on red headbands as they were hijacking the plane. She said that the passengers had been moved to the rear of the plane and that the hijackers were up front. She said that she thought the plane may have been over the Mississippi because they were passing over a large river. She said that the passengers were discussing how to overpower the hijackers, including preparing hot water to throw on the hijackers and then to rush them.

9:53 A.M., FAA headquarters informed Herndon Command Center that the Deputy Director for Air Traffic Services was talking to Deputy Administrator Monte Belger about scrambling aircraft.³⁷⁴

9:54 A.M. A passenger phoned her stepmother and told her that the plane had been hijacked. The call lasted approximately four and a half minutes. Before hanging up, the passenger said she had to go because they were trying to break into the cockpit.³⁷⁵

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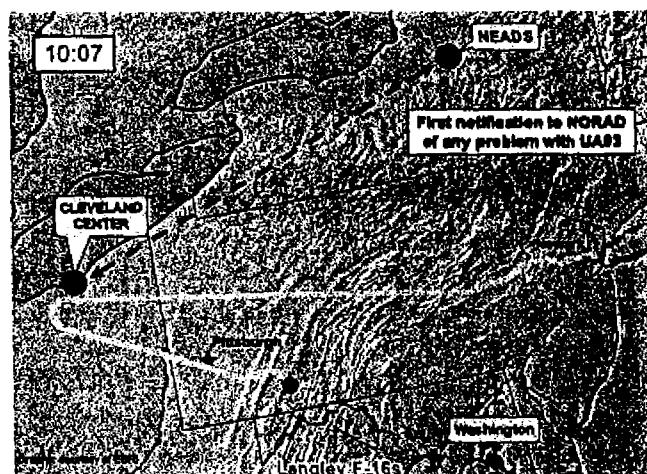
At about **10:01 A.M.**, Jarrah stopped his violent maneuvers and said, "Allah is the greatest! Allah is the greatest!" He then asked another hijacker in the cockpit, "Is that it? I mean, shall we put it down?" to which the other replied, "Yes, put it in it, and pull it down."³⁸⁵

At **10:01 A.M.**, two minutes before Flight 93 crashed, Command Center updated FAA headquarters that the flight was "rocking its wings."³⁸⁶

The passengers continued their assault and at **10:02:23**, a hijacker said, "Pull it down! Pull it down!" The hijackers remained at the controls but must have judged that the passengers were only seconds from overcoming them. The airplane headed down; the control wheel was turned hard to the right. The airplane rolled onto its back, and one of the hijackers began shouting "Allah is the greatest. Allah is the greatest."³⁸⁷

10:03:11 A.M. With the sounds of the passenger counterattack continuing, Flight 93 crashed into an empty field in Shanksville, Pennsylvania, at 580 miles per hour, about 20 minutes' flying time from Washington, D.C.³⁸⁸

10:07 A.M. Unaware that the aircraft had already crashed, Cleveland Center notified NEADS that Flight 93 had a bomb onboard and passed them the aircraft's last known latitude and longitude. NEADS was never able to locate Flight 93 on radar because it had already crashed. The call was the first notification the military – at any level – received about Flight 93.³⁸⁹ No one from FAA headquarters, which was informed of the hijacking at 9:34 A.M., requested military assistance regarding Flight 93. In fact, the executive level managers at FAA headquarters did not forward to the military any of the information they received from Herndon Command Center regarding Flight 93.³⁹⁰



10:10 A.M. Ballinger sent an ACARS message to Flight 93: "Don't divert to DC. Not an option." He sent the same message again one minute later.

Also at **10:10 A.M.**, when the information that Flight 93 had turned off its transponder and had a potential bomb on board reached the mission crew commander, he was dealing with the arrival of the Langley fighters over Washington DC and what their orders were with respect to potential targets. While NEADS searched for the radar track on Flight 93, the Mission Crew Commander instructed his Weapons Director on the current rules of engagement (ROE) for the fighters, stating that they did not have clearance (permission)

team appear to have been determined by aircraft type. The Boeing 757 was a single-aisle plane; the Boeing 767 had two aisles. Thus for Flights 77 and 93 (both 757s), the probable hijacker pilot was seated in the very front of the plane, a position that gave him ready access to the cockpit. The other hijackers were seated close behind in first class (or, in the case of two hijackers on Flight 77, in the forward part of coach), covering both sides of the aisle. For the twin-aisled Flights 11 and 175, a layout that offered more operational maneuverability, the hijacker pilot sat in business class with accomplices both in front in first class and just behind, covering both aisles. The seating arrangements chosen by the hijackers facilitated the isolation of the front of the aircraft and the hijacker pilot's entry into the cockpit.⁴⁰²

Cockpit Access. Exactly how the hijackers gained access to the cockpit is not known. The strength of the cockpit doors in use on 9/11 would not have precluded forced entry.⁴⁰³ However, cockpit keys were available aboard the aircraft.⁴⁰⁴ On September 11, 2001, a single key fit the cockpit doors of all Boeing 757 and 767 aircraft. While the hijacking response doctrine, known as the commercial aviation community's "Common Strategy," taught the flight crew to try to keep hijackers out of the cockpit, it above all urged nonconfrontation and cooperation.⁴⁰⁵ There is no way to know whether the terrorists had access to a key; but if not, access to the cockpit could be gained by luring the pilots out of the cockpit, threatening violence, or forcing the door open. There was no evidence to suggest any of the hijackers sat in a jump seat in the cockpit. Each of the hijackers had an assigned seat and appears to have used it.⁴⁰⁶

Weapons and Tactics. The hijackers likely gained control of the forward section of the cabin after the aircraft's seatbelt sign was turned off, the flight attendants had begun cabin service, and passengers were allowed to begin to move around the cabin.⁴⁰⁷ The hijackers took over the aircraft by force or threat of force, as reported on all four flights.

Records of purchases by the hijackers, as well as evidence discovered at the crash sites (primarily the site of Flight 93), indicate that the primary weapons of choice were knives with a blade less than 4 inches long.⁴⁰⁸ The use of knives was cited on all four flights by flight crew and passengers. Box cutters were specifically indicated only in one report from Flight 77. A box cutter-type implement, along with a variety of short-bladed knives, was found at the crash site of Flight 93.

The hijackers gained access to the cockpit and sealed off the front of the aircraft from the passengers and cabin crew, moving them to the back of the aircraft. This was reported, with slight variation, on all four flights. Reports from two of the hijacked aircraft (Flights 11 and 175) indicated the presence of Mace in the cabin. Both Mace and other irritants such as pepper spray were items specifically prohibited under FAA rules.

We believe the terrorists created a "sterile" area around the cockpit by isolating the passengers and attempting to keep them away from the forward cabin. The hijackers used the threat of bombs to frighten and control the passengers. This was reported on all flights except Flight 77. The hijackers also used announcements on Flight 11 and Flight 93 that

the aircraft was returning to the airport to make passengers believe they were in no immediate danger if they cooperated.

Initially, these tactics, techniques, and communications resembled those of a traditional hijacking for the purpose of taking hostages or transportation. This was the scenario that the "Common Strategy" was designed to address.

As the hijackings progressed, however, there was evidence of growing awareness on board the aircraft that something beyond a traditional hijacking was under way. Callers from both Flights 11 and 175 noted early in the process very erratic flying patterns and talked about the possibility that the hijackers were piloting the aircraft. One Flight 175 passenger predicted the hijackers intended to fly the aircraft into a building. Another said the passengers were considering storming the cockpit.

Later, well into the hijacking of Flight 77, at least one passenger was told that two planes had crashed into the World Trade Center. In the case of Flight 93, the growing awareness among the passengers and crew of what had already occurred on other flights spurred a revolt.

Pilot Training. To successfully carry out the 9/11 attacks, at least one member of the team had to be able to pilot the plane, navigate it to the desired location, and direct it into the intended target. These tasks required adequate training and preparation.

FAA and FBI records show that 4 of the 19 hijackers, one aboard each flight, received flight training, possessed FAA certificates as qualified pilots and honed their skills at flight simulator facilities.⁴⁰⁹ FAA certification required that a candidate complete a certain amount of flight training and pass both a written exam and a practical skills test.⁴¹⁰ Each of the four pilots received flight training in the United States, which is recognized as having one of the world's most advanced pilot training education and certification systems in the world; thus many pilots from many nations train here.⁴¹¹

Of the five hijackers on Flight 11, only Mohamed Atta held a certificate from the FAA as a qualified private and commercial pilot, including a rating in operating multi-engine aircraft. Atta received his commercial pilot certificate in December 2000.⁴¹² He also received Boeing flight simulator training.

According to experts consulted by Commission staff, the simulator familiarized a pilot with the cockpit controls and the proper operation of the Boeing 757 and 767. It gave the pilot the operational proficiency, "feel," and confidence necessary to fly the aircraft. It was essential training for the hijacker pilots.⁴¹³

Knowledge of the aircraft, including its flight management system computer and autopilot function, could be gained through simulator training, the operational manual (which was widely available), and flight simulator software sold by many public outlets.⁴¹⁴ Flight manuals and instruction videotapes were found among the belongings left behind by the hijackers.

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Of the five hijackers aboard Flight 175, only Marwan al Shehhi held an FAA pilot certification. Shehhi earned his commercial pilot certificate in December 2000, on the same day and at the same school as Atta. He also received Boeing flight simulator training.⁴¹⁵

Of the five hijackers aboard Flight 77, Hani Hanjour alone had completed flight training. He received his commercial multi-engine pilot certificate from the FAA in April 1999. He had extensive flight training in the United States, and was perhaps the most experienced and highly trained pilot among the 9/11 hijackers.⁴¹⁶ The Pentagon, his target, was particularly difficult to hit because of its low profile.

Ziad Jarrah was the only one of the four hijackers aboard Flight 93 with flight training and FAA pilot certification. Jarrah was awarded his private pilot certificate from the FAA in November 2000. He also received Boeing flight simulator training. Jarrah had logged only 100 flight hours, and did not possess a commercial pilot certificate or multi-engine rating.⁴¹⁷

Flying the Aircraft. Their training enabled the pilots to hit their intended targets. The onboard Flight Management System in use could be programmed in such a way that it would navigate the aircraft automatically to a location as precise as a building, at a speed and altitude of the hijacker's choosing, provided the hijackers possessed the precise positioning data necessary.⁴¹⁸ The "black box" flight data recorders recovered from Flight 93 and Flight 77 indicate that the hijacker pilots used navigational codes for the Washington, D.C., area. Financial records indicate that Jarrah, the hijacker pilot of Flight 93, had purchased a global positioning satellite system.⁴¹⁹ He had attempted to buy four GPS units, but only one was available.

Whether the hijackers flew the aircraft manually, engaged the Flight Management System to take them to a programmed destination, or employed some combination of both methods, experts consulted by the Commission staff believe their training and experience adequately prepared them to complete the mission.⁴²⁰

SUMMARY TABLES

Table 1: Hijack Times and FAA Awareness of Hijack

Flight	Impact	Hijack Time*		FAA Awareness of Hijack
		Time	Time	
AA11	8:46:40	8:14-8:20	8:26	
UA175	9:03:02	8:42-8:46	8:55	
AA77	9:37:46	8:51-8:54	9:24**	
UA93	10:03:11	9:28	9:28	

* Estimated Hijacking Times

** Between 8:56 and 9:09, the relevant FAA Center believed AA77 had crashed. Between 9:09 and 9:21, based on the events in New York, information from American Airlines and the inability to confirm the crash on the ground, the FAA began to believe that AA77 might also be hijacked. By 9:24 the belief that AA77 may have been hijacked was communicated to FAA headquarters.

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Table 2: FAA Awareness of Hijack and FAA Warning to the Military

Flight	Impact	FAA Awareness of Hijack		FAA Warning to the Military
		Time	Comments	
AA11	8:46:40	8:45		
UA175	9:03:11	8:56		
AA77	9:37:46	9:24 ¹		
UA93	10:03:11	9:28		

¹ Between 8:56 and 9:09, the relevant FAA Center believed AA77 had crashed. Between 9:09 and 9:21, based on the events in New York, information from American Airlines and the inability to confirm the crash on the ground, the FAA began to believe that AA77 might also be hijacked. By 9:24 the belief that AA77 may have been hijacked was communicated to FAA headquarters.

Table 3: FAA Warning to the Military

Flight	Impact	Notification as established by Commission Staff		FAA Warning to the Military
		Time	Warning	
AA11	8:46:40	8:38	9 minutes	
UA175	9:03:11	9:03	0 minutes	
AA77	9:37:46	None [*]	0 minutes	
UA93	10:03:11	10:07	0 minutes	

^{*} There was no notification received by NEADS that American 77 was hijacked. Washington Center informed NEADS at 9:34 that American 77 was lost in Indianapolis Center's airspace and could not be found. This notification was separate from and preceded the information NEADS received at 9:36 from Boston Center that there was an "aircraft VFR six miles southeast of the White House...six southwest." NEADS did not know that aircraft, which struck the Pentagon a minute later, was American 77.

PART II: CIVIL AVIATION SECURITY AND THE 9/11 ATTACKS

2.1 THE THREAT

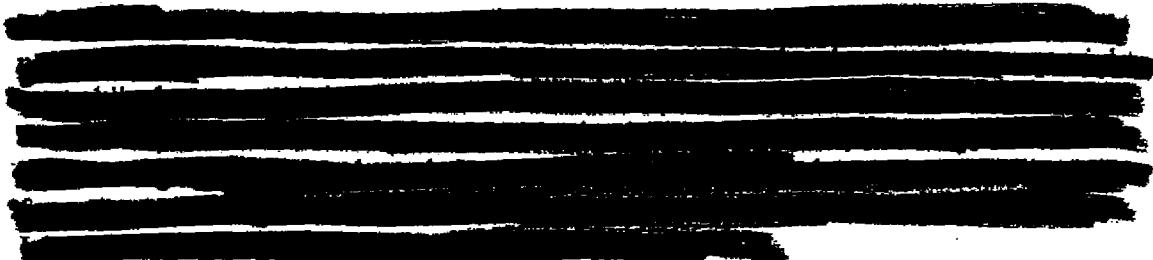
Pre-9/11. A great challenge in conducting an analysis of a catastrophic and transformational event is trying to recapture the reality of that time as experienced by the people who lived it, including those in policymaking positions. Hindsight confers an enhanced understanding of the rush of past events, but the perspective it provides can be distorted. To answer fully the question of why the civil aviation system failed to stop the attacks that day, we must recall the world before September 11.

Former FAA administrator Jane Garvey testified:

On September 10, we were not a nation at war. On September 10, we were a nation bedeviled by delays, concerned about congestion, and impatient to keep moving. . . And on September 10, based on intelligence reporting, we saw explosive devices on aircraft as the most dangerous threat. We were also concerned about what we now think of as traditional hijacking, in which the hijacker seizes control of the aircraft for transportation, or in which passengers are held as hostages to further some political agenda.⁴²¹

The Commission staff found no evidence that the FAA knew, or possessed intelligence indicating, that Bin Laden, al Qaeda, al Qaeda affiliates, or any other group was plotting to hijack commercial planes in the United States and use them as weapons.⁴²² Administrator Garvey and Claudio Manno, Director of FAA's Office of Civil Aviation Intelligence on 9/11, testified to that effect before the Commission.⁴²³

Nevertheless, the FAA had indeed considered the possibility that terrorists would hijack a plane and use it as a weapon. In the spring of 2001, FAA intelligence distributed an unclassified CD-ROM presentation to air carriers and airports, including Logan, Newark, and Dulles. The presentation cited the possibility that terrorist might conduct suicide hijacking but stated: "fortunately, we have no indication that any group is currently thinking in that direction."⁴²⁴



Many officials pointed out to us that despite numerous reports and assessments regarding the growing terrorist threat, the U.S. civil aviation system had been enjoying a period of relative peace. By 2001, it had been over a decade since a U.S. air carrier had been hijacked or bombed.⁴²⁶

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Even terrorist experts perceived positive trends. Writing in 1999, aviation security expert and former Gore Commission member Brian Jenkins observed that the battle between terrorism and security has "continued for the past 30 years with security gradually gaining. In the early 1970s, more than 30 percent of international terrorist attacks were targeted against commercial aviation; it is less than 10 percent today."⁴²⁷

The absence of attacks instilled a confidence that U.S. counterterrorism, at least domestically, was working, allowing the FAA to focus on other serious policy challenges facing civil aviation, including capacity problems, the industry's economic woes, the demand for better customer service, and the ever present issue of safety. To the extent there was a threat, numerous FAA and air carrier officials told us the threat was predominantly overseas.

The fact that the civil aviation system seems to have been lulled into a false sense of security is striking not only because of what happened on 9/11 but also in light of the intelligence assessments, including those conducted by the FAA's own security branch, that raised alarms about the growing terrorist threat to civil aviation throughout the 1990s and into the new century. This heightened threat was attributed in large part to Usama Bin Ladin who, in 1998, had declared war on the United States and also threatened to attack aviation, including the hijacking of U.S. aircraft.⁴²⁸

Redacted

Numerous documents, reports and assessments produced by the FAA's intelligence division through the late 1990s and up to 9/11 reported on the growing threat posed by terrorists. For example, between March 14 and May 15, 2001, the FAA's Office of Civil Aviation Intelligence conducted a series of classified briefings for security officials at 19 of the nation's largest airports, including Newark, Boston's Logan and Washington Dulles. The briefing highlighted the threat posed by terrorists in general and Bin Ladin in

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He recalled that the White House counterterrorism officials emphasized that an attack would likely take place overseas.⁴³⁹ Other FAA officials questioned by the Commission, including Administrator Garvey, told us that leading up to 9/11 they too understood the threat to be primarily abroad.⁴⁴⁰

Canavan testified to the Commission, "We really had no credible or actionable intelligence that told us this was really going to happen. In other words, this is a real threat. [REDACTED]

[REDACTED] None of it was ever talked about being in the United States."⁴⁴¹

In the course of our investigation FAA intelligence officials stated that such specific intelligence is rare in the counterterrorism environment. Nevertheless, because the intelligence that summer did not provide details about a specific plot, the security directives issued by the FAA that summer required no significant upgrade of security at domestic checkpoints, such as prohibiting knives or requiring Computer Assisted Passenger Prescreening System (CAPPS) selectees to undergo additional screening of their person or carry-on bags. Nor did the FAA implement any additional measures, such as increasing the presence of air marshals or imposing the other high-security measures it took in the aftermath of the 9/11 attacks.⁴⁴²

The first security directives that went out after the early July CSG meeting were issued on July 27, 2001. One concerned special security procedures involving charter flights to or from Cuba, another extended measures in place for clearing law enforcement officers' identification before they would be allowed to access sterile areas in airports.⁴⁴³ [REDACTED]

[REDACTED] Before 9/11, two other security directives went out, one in late August adding a few more names to the no-fly list, [REDACTED]

[REDACTED] None of these affected general security procedures at checkpoints or aboard aircraft.⁴⁴⁴

In 2001, the FAA issued 16 information circulars. These publications were designed to warn airports and air carriers about security issues but did not specify or require any security measures they should take.

The first circular sent out after the July CSG meeting appeared on July 12. It updated [REDACTED] the threat posed by surface-to-air missiles. Six more circulars were distributed before 9/11, five of them highlighting overseas concerns. Among them was a circular issued on July 31 that mentioned hijacking. It alerted the aviation community to "reports of possible near-term terrorist operations . . . particularly on the Arabian Peninsula and/or Israel" and contained the following language:

[REDACTED]

Administrator Garvey told the Commission that she was aware of the heightened threat during the summer of 2001. However, both FAA Deputy Administrator Monte Belger and his assistant told us in separate interviews that they were basically unaware of the threat posed by Usama Bin Ladin and al Qaeda prior to September 11, 2001.⁴⁴⁶

While the airlines had been instructed by the FAA to "demonstrate a high degree of alertness," neither of the senior operations executives of the airlines whose planes were hijacked on 9/11 were aware of the heightened threat environment that summer.⁴⁴⁷

The Commission was contacted by veteran commercial pilots who said that they were never made aware of the threat conditions that summer, and that they believe they should have been.

Sabotage. As stated by Administrator Garvey, prior to 9/11 the FAA viewed sabotage as the preeminent threat to civil aviation, particularly on the domestic front. The 1980s had seen a tremendous growth in the number of casualties from aircraft sabotage, including the 1985 bombing of an Air India flight that killed 329 people, the 1987 bombing of a Korean Air flight that killed 115 people, and the 1988 bombing of Pan Am 103 that killed 270 people.⁴⁴⁸

Throughout the 1990s, terrorist activities and other factors reinforced the FAA's view, including the foiled 1995 plot to blow up 12 U.S. jetliners over the Pacific, devised by Ramzi Yousef, mastermind of the 1993 attack on the World Trade Center; the TWA 800 disaster in 1996 (which was at first thought to be an act of sabotage but was later judged by federal investigators to be a fuel tank explosion caused by an electrical short circuit); and terrorist innovations in building improvised explosive devices (IEDs).⁴⁴⁹

In reaction to the TWA 800 disaster, President Clinton created the White House Commission on Aviation Safety and Security, chaired by Vice President Al Gore and commonly referred to as the Gore Commission. Its most significant security recommendations, issued in February 1997, dealt with the bomb threat to aircraft including the deployment of explosive detection systems at the nation's airports.⁴⁵⁰

FAA planning documents in effect on 9/11 listed the array of threats to civil aviation perceived by the agency and the measures to counter them. They also reflected the FAA's concern about sabotage.

[REDACTED]

The documents did not list suicide hijacking as a threat.

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particular, including his threats against aviation. The renewed interest in hijacking by terrorist groups was also covered.⁴³⁰

Perceived Aviation Security Threat. While hostage taking was the dominant concern in regard to hijacking, sabotage was the threat that concerned civil aviation security officials most. After 9/11, FAA Administrator Garvey told a Senate Committee that prior to that day, "all our Security Directives, all of our security recommendations have been geared toward explosives. This [9/11] was a whole new world for us."⁴³¹ She later told the Commission that "based on intelligence reporting, we saw explosive devices as the most dangerous threat."⁴³²

An act of sabotage or a traditional hijacking to obtain hostages was the threat to aviation foremost in the mind of FAA security officials during the summer of 2001, [REDACTED]

[REDACTED]

The concern grew in the Spring of 2001 when al Qaeda operative Ahmed Ressam (who planned to bomb Los Angeles International Airport at the millenium) and the al Qaeda conspirators who blew up two U.S. embassies in Africa in 1998 were convicted in U.S. courts.⁴³³

One of the FAA's liaisons to the intelligence community told the Commission that the intelligence community sensed, particularly in June and July 2001, that "something was going to happen" that summer. Most of the community, he said, was looking for the event to occur abroad.⁴³⁴

Much of this threat information was contained in the daily intelligence summaries produced by FAA's security branch for the agency's leaders. The summaries were based on reporting it received from the U.S. intelligence community and other sources. Among the 105 summaries issued between April 1, 2001, and September 10, 2001, almost half mentioned Bin Laden, al Qaeda, or both, mostly in regard to overseas threats.⁴³⁵

Of the 52 summaries mentioning Bin Laden or al Qaeda, 5 mentioned hijacking as a capability al Qaeda was training for or possessed. Two mentioned suicide operations, but not connected to a threat to aviation.⁴³⁶ One of the summaries, which will be discussed later, mentioned air defense measures being undertaken in Genoa, Italy, for the G-8 summit to protect the event from possible air attack by terrorists (including their use of an explosives-laden aircraft as a weapon).⁴³⁷

The National Security Council's Counterterrorism Security Group (CSG) responded to the threat reporting that summer by inviting the FAA to attend a meeting in early July 2001 at the White House to discuss with domestic agency officials heightened security concerns.⁴³⁸ General Michael Canavan, the FAA's top security official, attended the meeting.

Civil aviation security officials focused on bombing in part because they believed measures to counter it were not nearly as pervasive or advanced as those in place to foil hijackings, which included checkpoint screening with metal detectors and X-ray machines. For this reason, the effort to deploy explosives detection technology to screen checked baggage became a priority for the FAA following the Pan Am 103 disaster in 1988.

Moreover, the absence of hijackings was cited by a number of FAA and air carrier security officials as evidence that checkpoint screening was working effectively to stop hijacking and that sabotage was the greater threat.⁴⁵² One former high-ranking Department of Transportation security official told us that in his view, the lack of incidents suggested that the nation had won the battle against hijacking.⁴⁵³ The security director for a major air carrier told us that the approach to checkpoint security was "if it ain't broke, don't fix it."⁴⁵⁴

Because sabotage was considered deadlier than hijacking it was viewed as the greater menace—particularly considering that traditional hijackers wanted either transportation—such as the hijackings to Cuba in the late 1960s and early 1970s—or political concessions.

Hijacking. Despite the system's view of the relative threat posed by hijacking and sabotage, statistics showed that hijacking had always been the most prevalent means of attacking civil aviation. According to the Rand-St. Andrews University chronology of terrorist attacks, between 1972 and 1996 hijacking represented 87 percent of attacks against civil aviation.⁴⁵⁵ Between 1996 and 2000 there were 64 hijackings worldwide but only 3 incidents of sabotage. Between 1996 and 2001, 15 hijackings took place. No cases of sabotage occurred. As of 2000, the incidence of hijacking was on the increase worldwide.⁴⁵⁶

And while sabotage had been the deadlier form of attack, hijackings had also often proved fatal. The 1985 hijacking of an Egypt Air flight killed 60 people and injured 35; the 1986 hijacking of Pan Am 73 killed 22 people and injured 125; and the 1996 hijacking of an Ethiopian Airlines flight killed 123 people.⁴⁵⁷

As noted previously, the FAA intelligence unit did perceive that the hijacking threat was on the rise prior to 9/11, but primarily as an overseas concern. Nevertheless, in a July 17, 2001, proposed rulemaking, the FAA expressly cited the presence of terrorist cells in the United States and their interest in targeting the transportation sector.⁴⁵⁸

We asked the top security official at the Department of Transportation on 9/11 why policymakers continued to view the risk of hijacking to be overseas, when the FAA's own public documents cited an urgent and growing domestic threat. He said that in hindsight he had asked himself that same question many times.⁴⁵⁹

A synopsis of the FAA's view of the hijacking threat was set forth in an advisory issued to air carriers and airports on April 27, 2000, four months after five Islamist extremists hijacked Indian Airlines Flight 814 to Kandahar, Afghanistan, to win the release of incarcerated fellow extremists. The circular stated:

Redacted

The expiration date on the advisory was "indefinite," and it had not been replaced as of September 11, 2001.

However, the FAA's security briefings to airports in the spring of 2001 contained an important caveat. It stated that from the hijackers' perspective, "A domestic hijacking would likely result in a greater number of American hostages but would be operationally more difficult. We don't rule it out. . . . If, however, the intent of the hijacker is not to exchange hostages for prisoners, but to commit suicide in a spectacular explosion, a domestic hijacking would probably be preferable."⁴⁶¹

2.2 THE CIVIL AVIATION SECURITY LAYERS

Purpose of the Aviation Security System. Federal law required the FAA to protect U.S. civil aviation from piracy and sabotage. An FAA report produced in June 2001 stated the agency's mission more specifically: "The objective of the civil aviation security system is to prevent terrorist acts against civil aviation. The security system necessary to protect the traveling public must be capable of detecting, assessing, and ensuring that threat objects such as explosives, weapons, or chemical or biological agents are not allowed on aircraft."⁴⁶²

Policy Setting and Implementation. As the United States responded to attacks on commercial aviation, particularly the rash of hijackings in the 1970s, and high-profile disasters such as Pan Am 103, the roles and responsibilities for planning, implementing, and enforcing the nation's aviation security system took shape, and were vested in five primary institutions:

1. The Federal Aviation Administration was responsible for setting and enforcing regulations "to protect passengers and property on an aircraft in air transportation . . . against an act of criminal violence or aircraft piracy."⁴⁶³
2. Air carriers were responsible for screening passengers and baggage for weapons and prohibited items (explosives and incendiary devices), controlling access to aircraft, and training air crews in emergency response.⁴⁶⁴
3. Airport authorities were responsible for controlling access to sensitive airport facilities, including the Air Operation Area (AOA), and providing law enforcement services to airport facilities.
4. U.S. intelligence agencies were responsible for collecting and sharing with the FAA intelligence information bearing on threats to aviation, and, together with law enforcement, for stopping such plots from being carried out.
5. Congress was responsible for enacting aviation security statutes, performing oversight of the national civil aviation system, and funding the FAA.

Together, the institutions of civil aviation security were responsible for protecting 1.8 million passengers daily as they traveled aboard more than 25,000 flights, leaving from and arriving at more than 563 domestic airports.⁴⁶⁵

Layered System. The basic approach to achieving civil aviation security before 9/11 was described by the President's Commission on Aviation Security and Terrorism in its May 1990 report. This document summarized the FAA's security approach as a system of redundant, interrelated security measures based on the theory that if one measure fails, another will back it up.⁴⁶⁶ Civil aviation security authorities repeatedly emphasized the importance of a layered system of protection for airline passengers, aircraft, and facilities. Such a system afforded protection that no single layer of security could have provided independently.⁴⁶⁷

FAA security inspections, Department of Transportation Inspector General audits, and General Accounting Office investigations found persistent deficiencies in all areas of aviation security. This was powerful evidence that no single layer of security could be relied on to sufficiently protect passengers and aircraft from piracy and sabotage.

On the morning of September 11, 2001, national civil aviation security consisted of six major layers of defense. They were

- intelligence
- airport access control
- passenger prescreening
- passenger checkpoint screening

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- checked baggage/cargo/mail screening for explosives
- aircraft and onboard security

Only those layers relevant to the 9/11 plot—intelligence, passenger prescreening, passenger checkpoint screening, and onboard security—are addressed in the following staff analysis.

Intelligence

Intelligence was considered to be the first layer of security—the linchpin of the U.S. civil aviation security system. The FAA relied on intelligence to identify specific plots against civil aviation so that the U.S. intelligence community or law enforcement could foil them before the terrorists got to the airport.

Intelligence and other information helped shape the agency's view of the terrorist threat to civil aviation, and was to inform the policies, practices and procedures necessary to protect passengers and commercial flights from hijacking and sabotage.

Without strong intelligence function that was well connected to policymakers, the task of designing and operating a rational and effective security system would be difficult.

Although it did not collect raw intelligence, the FAA maintained an intelligence unit that operated a 24-hour watch where data was assessed by trained analysts. The FAA was the agency primarily responsible for assessing intelligence for its relevance specifically to U.S. commercial aviation.⁴⁶⁸ The unit received [REDACTED] threat related information daily from U.S. intelligence agencies, particularly the FBI, CIA, and State Department,⁴⁶⁹ as well as other sources of information bearing on civil aviation security, including academia and the media.⁴⁷⁰

[REDACTED]
[REDACTED]
[REDACTED]⁴⁷¹ While the intelligence unit had no investigative powers, if certain information required particular investigative follow-up, FAA analysts would request the FBI or CIA to conduct further inquiry.

Important intelligence information derived from these cases would be included in daily intelligence summaries and other finished intelligence products and assessments bearing on civil aviation security.⁴⁷² The distribution of the daily intelligence summary to the FAA's top policymakers was one of the primary means the intelligence unit endeavored to keep leadership properly informed.⁴⁷³

If the information provided specific information about a threat to a particular flight or airport, the FAA's intelligence unit would notify the affected air carrier or airport directly.⁴⁷⁴ If, however, the threat required the implementation of some extraordinary security measure, FAA's top security official—the associate administrator of civil aviation security—was empowered to order action through the issuance of a security

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directive.⁴⁷⁵ The directive would specify what measure was required, who was required to implement it, when it was to be implemented and over what time period.⁴⁷⁶

To ensure that security measures were properly calibrated to the threat, the FAA relied, in part, on its "Security Directive Working Group." This panel was made up of representatives from the three main divisions of FAA Civil Aviation Security—intelligence, operations, and policy. The group would convene to assess the adequacy of operations in regard to a particular threat and was authorized to make recommendations to the FAA associate administrator about whether to order the enhancement of security measures. The Commission requested documentation regarding any working group meetings held in 2001 regarding the high threat period that summer, but TSA was unable to find such documentation.

In addition to issuing security directives FAA could invoke various alert levels as part of its "Aviation Security Contingency Plan." The plan outlined specific threat levels and the accompanying required countermeasures "to ensure that the FAA, airport operators, and air carriers are able to respond on short notice to all civil aviation threats." The various alert levels represented the level of threat perceived by the FAA in light of incidents and intelligence estimates.⁴⁷⁷

Although the FAA's Office of Intelligence had a highly capable staff, it was not well connected to the agency's top policymakers. Intelligence that indicated a real and growing threat leading up to 9/11 did not stimulate significant increases in security procedures. FAA policymakers required either a security incident or "specific and credible" evidence of an "actionable" threat before they would take urgent action to strengthen security.⁴⁷⁸ This was despite the fact that such intelligence was recognized as being rare in the counterterrorism environment.

Since 9/11 public commentators and some Commission witnesses and interviewees cited the intelligence community's failure to connect the dots regarding the 9/11 attacks. We examined what the FAA knew about the following:

- the domestic presence and activities of international terrorist groups;
- the interest of Usama Bin Ladin and al Qaeda in hijacking;
- terrorists training as pilots for terrorist purposes; and
- the interest of terrorist groups in the use of aircraft as weapons.

Domestic Presence of International Terrorist Groups. FAA records indicate that the agency did understand that terrorists were present in the United States and posed a threat to commercial aviation.⁴⁷⁹ In 1998, the FAA issued a security directive that read in part:

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R E D A C T E D

In addition, a July 17, 2001, *Federal Register* notice from the FAA stated:

Terrorism can occur anytime, anywhere in the United States. Members of foreign terrorist groups, representatives from State sponsors of terrorism and radical fundamentalist elements from many nations are present in the United States. . .Thus an increasing threat to civil aviation from both foreign and potentially domestic ones exists and needs to be prevented and countered.

This language was in support of a proposed rule to improve passenger screening and other security measures that Congress ordered in 1996. According to FAA officials, it had been held up by the Office of Management and Budget because of concerns over costs, and was still not in effect as of 9/11.⁴⁸²

FAA officials told us that what information they did receive about the presence and activities of foreign terrorist groups in the United States was general and anecdotal. They said they received little from the intelligence community regarding specific plots or the activities and capabilities of these groups.⁴⁸³ One senior FAA official told us that FAA was being told that those terrorists who were present in the United States were engaged in "fund-raising rather than actual terrorist people plotting."⁴⁸⁴

R E D A C T E D

In addition, FAA intelligence officials told us that they had perceived weaknesses in domestic reporting. There were several reasons for these flaws. First, although the FBI was the lead government agency on counterterrorism issues, its primary focus was on collecting evidence for criminal cases, not on the collection and dissemination of intelligence. The CIA, meanwhile, was focused on the terrorist threat overseas. [REDACTED]

Second, there were indications of strain between some members of the intelligence community. One top FAA security official informed us that his refrain to the intelligence community prior to 9/11 was "You guys can tell us what's happening on a street in Kabul, but you can't tell us what's going on in Atlanta."⁴⁸⁸ The former head of the FAA's Civil Aviation Security branch told us that he when asked counterparts in the intelligence community if the FAA could receive higher levels of information, his requests were not greeted warmly by some. In his interview with us, he characterized their attitude toward the FAA as "condescending."⁴⁸⁹

Third, FAA officials stated that even when useful information on domestic activities was developed by the intelligence community it was not always shared with them. As an example, these officials cited the failure to apprise the FAA of the "Phoenix EC" memo written in the summer of 2001 by an FBI special agent regarding his concerns about flight training being undertaken by Middle Eastern men at U.S. flight schools.⁴⁹⁰ One high-ranking official at the FAA testified that had this memo been received by the FAA, an intelligence case file would have been opened specifically on pilot training, and appropriate investigative and collection follow-up would have been requested.⁴⁹¹

Moreover, this intelligence might have put the information the FAA later received about the arrest of Zacarias Moussaoui into sharper focus. Moussaoui was arrested by the Immigration and Naturalization Service in August 2001 following reports of suspicious behavior in flight school.

But FAA intelligence officials were not the only ones who did not know about the Phoenix EC memo. The FBI's civil aviation program manager and the FAA's liaison to the FBI were also kept in the dark.⁴⁹² Nor were they aware that in 1998 the FBI tasked its field offices to examine whether Islamist extremists in their area were taking flying lessons.⁴⁹³

There are several explanations for this apparent breakdown in communications. The Civil Aviation Security program at FBI headquarters was handled by a single FBI employee who, until 1998, served in this capacity on a part-time basis.⁴⁹⁴ We found no formal process for ensuring that the manager received all information pertinent to aviation security threats. Her access depended on her personal relationships with field agents responsible for the airports. A former head of the Air Transport Association told the Commission that the air carriers had long advocated the establishment of a civil aviation security unit within FBI headquarters. The absence of one, he said, was "the single greatest failure prior to 9/11."⁴⁹⁵

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The FAA employee who was assigned to the FBI reported that, in fact, he served as a "detailee" to the FBI, not as a "liaison."⁴⁹⁶ As a detailee he spent nearly 40 percent of his time working on FBI assignments, including the investigation of the 1998 bombings of two U.S. embassies in Africa. In theory, his assignment to the Radical Fundamentalist Unit at FBI placed him in a unit where he could receive timely and important terrorist information that could benefit the FAA. However, he was responsible for many tasks, and the dual responsibilities imposed on him by two masters made it impossible for him to devote his full attention to civil aviation security issues.

REDACTED

REDACTED

One FAA official told us that in 2000, the Defense Intelligence Agency hosted a conference at which analysts, including representatives from the FAA, discussed cases in which hijackers possessed advanced knowledge of aircraft and piloting skills. [redacted]

REDACTED

We found no documentation to indicate that the FAA was aware that FBI headquarters had tasked field offices to review whether Islamist extremists were training in aviation schools in the late 1990s. We also found no evidence that the FAA asked the FBI to canvass flight-training facilities for terrorists.⁵¹¹

REDACTED

Also in 1994, a private plane piloted by a suicidal youth crashed into the south lawn of the White House.⁵¹⁴ [redacted]

REDACTED

Redacted

As discussed earlier, in 2000 and 2001, FAA's intelligence branch produced a presentation for airports and air carriers throughout the country that mentioned the possibility of a domestic suicide hijacking but reassuringly added that no group currently seemed to be making such plans.⁵²⁸ [REDACTED]

tactics because the Algerian terrorist group known as GIA, the Armed Islamic Group, and al Qaeda had all begun to use suicide attacks in the late 1990s. The FAA's head of civil aviation security on 9/11 told us that he always knew it was a possibility, but said he never saw specific threat information.⁵²⁹

In addition, both FAA and airline officials told us that their view of the suicide threat to aviation was influenced by a presentation at an aviation security conference in 1997 by a leading expert in suicide terrorism from the Middle East. He did not believe that these tactics would be used in aviation.⁵³⁰

Even though the FAA was working on efforts to deploy additional explosives detection technology at airports throughout the country, before 2001 the primary measure to combat sabotage was still the practice of positive passenger bag match (PPBM). PPBM required that the air carrier confirm a passenger had boarded the plane before loading his or her checked luggage. The assumption behind the practice was that the attacker was not suicidal, reflecting the FAA's view that suicide terrorism was not a priority threat. If it had been, PPBM would have been a very poor countermeasure.⁵³¹

In summary, although suicide hijacking would be a consequential event, FAA considered it unlikely because it was unprecedented, there was no specific and credible evidence to suggest it would happen, and at least one top suicide terrorism expert dismissed it as a tactic terrorists would employ in the aviation arena.

If intelligence failed to detect a terrorist plot, passenger prescreening was the next layer of protection.

Passenger Prescreening

Passenger prescreening before 9/11 had two main components designed to help keep dangerous people and their weapons off commercial aircraft.

The first was the FAA list of individuals known to pose a threat to commercial aviation, referred to as the no-fly list. On the basis of information it received from the intelligence community, the FAA was authorized to issue directives requiring air carriers to prohibit listed individuals from boarding aircraft or, in designated cases, to ensure that the passenger received enhanced screening before boarding.⁵³²

To be listed in a security directive, an individual had to pose a [REDACTED] threat to aviation.



Only a very few individuals among the thousands listed as known or suspected terrorists by the U.S. government were placed on the FAA no-fly list or ordered to undergo extraordinary security procedures. As of September 11, the list of individuals whom FAA

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sought to prohibit from flying comprised 12 people; it included subjects wanted in connection with the 1995 Manila air plot to blow up a dozen U.S. aircraft in the Pacific, among them Khalid Sheikh Mohammed, the mastermind behind the attacks of September 11, 2001. Another list contained the names of three individuals who were required to receive enhanced screening, including a physical search, before being allowed to board a commercial aircraft.⁵³⁴

We did not find any evidence of a concerted effort by the FAA to obtain the names of all suspected terrorists and to list them in order to prevent them from flying. Nor did we find evidence that the FAA was directed to make such an effort by the Department of Transportation or the White House, [REDACTED]

The former head of FAA Civil Aviation Security, Cathal "Irish" Flynn, testified that he did not know about the government's TIPOFF list of known and suspected terrorists until the Commission's hearings on the topic in January 2004.⁵³⁵ [REDACTED]

[REDACTED] would have enabled the aviation system to positively identify individuals that should be prohibited from flying distinct from innocent people who share the same name.⁵³⁶

The FAA's intelligence chief told us that often the basis for the listing of an individual as a threat was classified and thus the name was not shared with uncleared people or organizations. Because of classification concerns, he stated, it was very difficult to get clearance from the intelligence community to release the information, absent a direct threat to aviation. Thus, if the FAA wanted to use all 60,000 names in TIPOFF, each would have to be individually cleared.⁵³⁷

Interviewees also told us that the intelligence community was reluctant to share names of known and suspected terrorists with air carriers, particularly foreign carriers that fly to the United States. [REDACTED]

Two of the 9/11 hijackers, Nawaf al Hazmi and Khalid al Mihdhar, had been placed on the TIPOFF terrorist watchlist in late August. Their names were not shared with the FAA and therefore were not included in the no-fly list on September 11, 2001.⁵³⁸

Such limited use of terrorist watchlists seems to have contravened the recommendations of the White House Commission on Aviation Safety and Security. In 1997, the Gore Commission recommended: "The FBI and CIA should develop a system that would allow important intelligence information on known or suspected terrorists to be used in passenger profiling without compromising the integrity of the intelligence."⁵³⁹

While the civil aviation security system did not use lists of known or suspected terrorists to keep suspect individuals from boarding commercial aircraft, the FAA did require the air carriers to systematically prescreen passengers to predict who might be a security risk. This was the second element of prescreening—a program to identify those passengers on each flight who, because they matched profile criteria developed by the FAA (not including race, creed, color, or national origin), might pose more than a “minimal threat” to aviation. Those who met the criteria, the “selectees,” were subject to additional security measures.⁵⁴¹

In August 1996, the FAA began requiring air carriers to use a manual prescreening process to identify potential security threats. Under this program, the airline representative at the check-in counter assessed the passenger according to criteria established by the FAA. [REDACTED]

After considering these factors, the air carrier would determine whether the passenger should be selected to receive additional security measures.⁵⁴² [REDACTED]

If a passenger was selected, his or her checked baggage tags and boarding pass were specially marked. The bags would be screened for explosives, or held off the plane until it was confirmed that the passenger had boarded. The passenger’s carry-on items would be subject to a hand search or opened and assessed using FAA-approved explosives detection equipment. Using this method, screeners were better able to detect dangerous and deadly items. [REDACTED] 543

In October 1997, the FAA issued a security directive requiring air carriers to replace the manual passenger prescreening system with an automated one known as the Computer Assisted Passenger Prescreening System (CAPPS), which would automatically score each passenger’s security risk according to an algorithm of “factors” and “weights.”⁵⁴⁴ FAA officials believed that automating the system would make the process fairer and more reliable than the manual system that depended on airline personnel.⁵⁴⁵ One air carrier security official said that some customer service personnel would deliberately fail to “select” a passenger who met the criteria in order to avoid the hassle of imposing additional security measures.⁵⁴⁶

CAPPS, like the manual system that preceded it, assessed factors [REDACTED] and weighted them according to a computerized formula. The system also assigned selectee status to a random sampling of passengers on each flight in order to address concerns about discrimination and to keep terrorists from gaming the system by learning how to avoid selection. [REDACTED]

Under CAPPS, the air carrier was responsible for examining each selectee's checked baggage for explosives using an FAA-approved method, including screening with explosive detection equipment, screening with a trace detection system designed to identify the residue of explosives on the outside of the bag, examination by a bomb-sniffing dog, and physical search. Selectees were no longer required to undergo any additional screening of their person or carry-on baggage at the checkpoint.⁵⁴⁸ Up to 7 percent of all passengers were designated as selectees by the CAPPS system in place on September 11, 2001.⁵⁴⁹

Automated profiling was an inexact science. It identified many individuals who posed no particular threat to aviation and operated without empirical evidence that it captured all of those who were. [REDACTED] the system [REDACTED] targeted only those who checked bags.⁵⁵⁰ The limited consequences of "selection" reflected the FAA's view that nonsuicide bombing was the most substantial risk to domestic aircraft.

One architect of CAPPS told us that the reason selection did not entail additional scrutiny at the checkpoint was policymakers' fear that checkpoint screeners would devote too much attention to CAPPS selectees and would fail to thoroughly screen other passengers.⁵⁵¹

According to the former head of the airlines' trade association, the decision not to screen a selected person's carry-on bags was questionable given the "abysmally" poor performance of screening and given the wide range of dangerous items that were undetectable by the screening equipment in use at the time.⁵⁵² And an FAA security official told us that many of her colleagues believed that abandoning carry-on hand searches had led to a decrease in security.⁵⁵³

As originally conceived, passenger prescreening was supposed to be far more robust. In a 1996 report, an FAA security advisory group recommended CAPPS and called on airlines to apply an "FAA-approved passive profile to all passengers enplaning at U.S. airports to identify selectees, whose persons and property (checked baggage and carry-on bags/items) will receive additional security scrutiny."⁵⁵⁴

In fact, under Aviation Security Alert Level [REDACTED] an effect on 9/11, screeners were supposed to physically search or screen, with an approved device, the carry-on property of CAPPS selectees, and "hand wand or pat down that person."⁵⁵⁵ This practice was not required by the security directive implementing CAPPS and was not in evidence at either the Portland Jetport or Dulles Airport where surveillance video recorded the checkpoint screening of the hijackers.⁵⁵⁶

We believe that a number of factors were influential in scaling back the consequences of CAPPS selection, among them the desire to limit the purchase of expensive explosives

detection technology,⁵⁵⁷ concerns about customer dissatisfaction with delays and "hassle,"⁵⁵⁸ the need to avoid operational delays,⁵⁵⁹ and the fear of potential discrimination or the appearance of it.⁵⁶⁰ Issues of discrimination were central to the debate over passenger prescreening from its inception.⁵⁶¹ Applying secondary screening to the selectees' person and carry-on belongings was particularly controversial. One senior FAA security official said that the "procedure of escorting selectees and dumping out their carry-on at the gate" generated opposition from the American Civil Liberties Union and the Department of Justice.⁵⁶²

Even with the consequences of selection restricted to explosives screening or matching checked bags, the air carriers were under pressure from the FAA that threatened to undercut CAPPS' effectiveness. In a January 11, 1998, letter to United Air Lines, the FAA conditionally approved the air carrier's plan to implement the CAPPS system provided that the carrier ensured that

There will be no lines forming at your EDS [explosives detection system] machines and that in the rare cases where lines might form, the persons in those lines will be from sufficiently diverse racial, ethnic and national origin groups so as to minimize any possibility of problematic stigmatization. Once UA implements the CAPPS program, we plan to monitor UA's security operations, and any consumer complaints filed with DOT, to ensure that your assurances regarding the absence or passenger make-up of lines at EDS equipment are correct.⁵⁶³

One airline official told us that his company was informed that if at least three out of five people in a line of selectees awaiting screening were of the same ethnicity, its program would be deemed discriminatory.⁵⁶⁴

For a terrorist traveling lightly, or who had intentions other than to sabotage the flight using checked baggage, prescreening did not represent a layer of security that needed to be overcome.

On 9/11 10 of the 19 hijackers were selected for additional baggage screening: nine flew on Colgan or American Airlines and one on United. Two of them, Hani Hanjour and Mohamed Atta, were pilots. The Commission asked the Transportation Security Administration to independently score the hijackers using the CAPPS algorithm in effect on 9/11 to determine if the air carriers had properly prescreened the hijackers. The agency found that the algorithm had been applied correctly and the selection designations were appropriate.⁵⁶⁵

In any case, the selection process was not the primary problem with CAPPS. Those hijackers identified by the system as risks to the aircraft carried their weapons—knives, box cutters, Mace or pepper spray, and fake bombs—on their person or in their carry-on bags.⁵⁶⁶ Had CAPPS required selectees to be subject to a secondary search of their person, carry-on bags, or both, perhaps screeners could have found and confiscated the prohibited items; perhaps an alert screener would have identified the component parts of

a fake bomb; perhaps the additional screening would have exposed a rattled hijacker; or perhaps any knives found by the screeners would have been confiscated as they used the “common sense” urged of them by FAA rules and the discretion provided them by the airline’s checkpoint operations guide to prohibit menacing items.

Checkpoint Screening for Weapons

The most obvious and vital element of aviation security was checkpoint screening for weapons. Federal rules required air carriers “to conduct screening . . . to prevent or deter the carriage aboard airplanes of any explosive, incendiary, or a deadly or dangerous weapon on or about each individual’s person or accessible property, and the carriage of any explosive or incendiary in checked baggage.”⁵⁶⁷ The former associate administrator for civil aviation security, Irish Flynn, testified before the Commission that “checkpoint screening was the primary measure to prevent hijackings of aircraft.”⁵⁶⁸ More than half a billion passengers per year were screened by government-certified equipment operated and maintained according to FAA specifications.

In most instances, air carriers entered into contracts with private security companies to conduct screening operations.⁵⁶⁹ The staffing levels, training requirements, testing, and supervision of checkpoint screening personnel were set out in FAA regulations and enforced by the agency’s security operation unit. Requirements for screeners included 40 hours of instruction and on-the-job training, with recurrent training and assessments.

Screeners relied on metal detectors, X-ray machines, physical searches, and bomb detection technology. Metal detectors were calibrated to detect guns and large knives to prevent passengers from carrying such items beyond the checkpoint.⁵⁷⁰ Prohibited items such as guns would be confiscated. Restricted items such as box cutters were not allowed in the cabin, but the passenger would be given the option of placing the article in his or her checked baggage for transport.

All firearms were prohibited from being carried past a checkpoint, except those in the possession of authorized law enforcement officers. Knives with blades 4 inches long or longer also were expressly barred.⁵⁷¹

Neither FAA regulations nor the Air Carrier Standard Security Program specifically identified a three-and-one-half-inch knife that locks into place, such as those purchased by the 9/11 hijackers and like knives found at the crash site of Flight 93 in Pennsylvania, as “deadly or dangerous.” However, federal rules advised screeners to use “common sense” in determining what would be allowed past a checkpoint.⁵⁷² The airlines’ checkpoint operations guide—which the airlines developed in cooperation with the FAA to implement the agency’s rules—explicitly permitted knives with blades less than 4 inches long:⁵⁷³

Knives with blades under 4 inches, such as Swiss Army Knives, scout knives, pocket utility knives, etc. may be allowed to enter the sterile areas. However some knives with blades under 4 inches could be considered by a reasonable person to

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be a "menacing knife" and/or may be illegal under local law and should not be allowed to enter the sterile area.⁵⁷⁴

When asked whether screeners were truly expected to exercise discretion and common sense in making determinations about what that was not expressly prohibited could pass the checkpoint, one interviewee who oversaw checkpoint screening for an air carrier said, "It didn't work that way."⁵⁷⁵

However, under the air carrier's operations guide in place on September 11, 2001, "box cutters" were classified as restricted items, which "are not permitted in the passenger cabin of an aircraft. [REDACTED]

[REDACTED] Passengers may be given the option of having these items transported as checked baggage.⁵⁷⁶ The COG provided no guidance on how to distinguish between permissible "pocket knives" and restricted "box cutter."⁵⁷⁷

The president of the Air Transport Association, testified before the Commission that while box-cutting devices were considered a restricted item posing a potential danger and could be kept off the aircraft, "the pre-9/11 screening system was not designed to detect or prohibit these types of small items."⁵⁷⁸

Indeed, prior to 9/11, checkpoints were not tested for their ability to detect knives, because short knives were not FAA-approved "test items."⁵⁷⁹ This omission ignored the use of knives in deadly hijackings elsewhere around the world, as well as a 1994 FAA assessment of the threat to U.S. civil aviation that listed among "system vulnerabilities" to hijackers: "cabin crew or passengers can also be threatened with objects such as short-blade knives, which are allowable on board aircraft."⁵⁸⁰

The FAA based its policy on short-bladed knives on a number of factors: (1) the agency did not consider such items to be menacing;⁵⁸¹ (2) most local laws did not prohibit individuals from carrying such knives; and (3) the knives would have been difficult to detect unless the sensitivity of metal detectors had been greatly increased. A 1993 proposal to ban knives altogether had been rejected because small cutting implements were difficult to detect and the number of innocent "alarms" would have increased significantly, exacerbating congestion problems at checkpoints.⁵⁸²

Even if the system had detected such a knife carried by a hijacker on 9/11, the knife most likely would have been returned and carried onto the plane. Mace and pepper spray, in contrast, were categorized as "hazardous materials," which passengers were prohibited from carrying without the express permission of the airline.

By 2001, any confidence that checkpoint screening was functioning effectively was belied by numerous public studies by the General Accounting Office⁵⁸³ and the Department of Transportation's Office of Inspector General.⁵⁸⁴ Over the previous 20 years, government auditors [REDACTED] had documented serious and chronic weaknesses in the systems deployed to screen passengers and baggage for carry-on weapons or bombs.⁵⁸⁵ The trend in performance leading up to 9/11 was not encouraging. [REDACTED]

The April 2000 GAO assessment of passenger and baggage screening was representative of independent evaluations of that system's effectiveness through September 11, 2001:⁵⁸⁶

FAA and the airline industry have made little progress in improving the effectiveness of airport checkpoint screeners. Screeners are not adequately detecting dangerous objects and long-standing problems affecting screeners' performance remain, such as the rapid screener turnover and the inattention to screener training. FAA's efforts to address these problems are behind schedule.⁵⁸⁷

Among the problems that plagued checkpoints was the high turnover among screeners, who earned only minimum wage. This workforce was paid by the financially troubled and cost-conscious aviation industry, which—according to many FAA interviewees—viewed minimizing the cost of security as more important than maximizing its effectiveness.⁵⁸⁸

Technology also played a role. Metal detectors and X-ray equipment were the tools of effective screening.⁵⁸⁹ Technological

In its proposed rulemaking action of July 17, 2001, which aimed at updating basic security requirements (including checkpoint screening), the FAA itself noted that "publicity about problems with U.S. domestic civil aviation security measures increases the potential for attack here."⁵⁹⁰ Given this knowledge, the FAA's decision not to require more thorough searching of CAPPS selectees seems questionable. The proposed rule that accompanied the FAA's caution sought to require federal certification of screening companies and to increase the training of their employees. Though Congress had ordered the drafting of regulations to implement these reforms in 1996, they still had not been completed as of September 11, 2001, mainly because of concerns about their cost.

Moreover, in the late 1990s the FAA's requirement that checkpoint screeners conduct "continuous" and "random" hand searches of carry-on luggage for deadly and dangerous items had been largely replaced with a requirement to swipe them for explosives. FAA security officials told us that the "continuous" and "random" secondary screening of carry-on bags was often ignored by the airlines.⁵⁹¹ Screeners no longer were regularly opening the stream of carry-on luggage; instead, they were relying on devices that scanned for traces of explosives. Without randomly hand searching carry-on items, however, they had little chance of detecting a prohibited item that would not trigger the metal detector or that was well hidden in carry-on luggage.

Screeners also had ill-defined objectives and performance goals. Although the FAA tested checkpoints on their ability to detect prohibited items in order to prevent violence

aboard an aircraft,⁵⁹² federal regulations governing security checkpoints required that carriers conduct screening to “prevent or deter” the carrying of a deadly or dangerous weapon onto an aircraft.

Requiring that checkpoints be able to detect weapons was a more rigorous standard than deterrence, which could be accomplished simply by an appearance of effective screening. The president of the Air Transportation Association testified before the Commission that “This [checkpoint] system was specifically designed as a . . . prevent-or-deter system, and was not a more intrusive prevent-and-detect system.”⁵⁹³ In fact, the air carriers had successfully fought off the FAA’s efforts to change the standard to “prevent and detect.”

The regulations’ requirement to prevent or deter, moreover, seemed to provide a choice. Regulators and those who believed a higher standard of checkpoint performance should be imposed could point to the “prevention” language as the relevant standard, while those whose interests might be served by a less rigor could point to “deterrence” language. Indeed, air carrier security officials interviewed by the Commission staff spoke of their responsibility to “deter” the carrying of a weapon past a checkpoint and suggested that the absence of hijackings indicated success.

This disagreement was not merely semantic: it had real consequences. As a senior civil aviation security official told us, screening just for deterrence was unlikely to deter in the long run.⁵⁹⁴ Deterrence is measured by the absence of incidents rather than the ability to stop them. But in the age of terrorism, when an unprecedented and devastating blow can occur anytime and anywhere, the fact that an incident has not yet occurred cannot be relied on as the sole indicator that security is sufficient and working well.

Despite the documented shortcomings of the screening system, the long stretch of time—more than a decade—without a domestic hijacking or bombing was perceived by many within the system as confirmation that it was working.⁵⁹⁵ This view explains, in part, why a transportation security official told us that the agency thought it had won the battle against hijacking.⁵⁹⁶ In fact, one of the primary reasons that the secondary screening of passengers selected by the prescreening program was restricted to checked bags was officials’ belief that checkpoint screening was working sufficiently well. As events proved, their confidence was misplaced.

One former FAA Red Team member who testified before the Commission aptly observed, “From a security point of view, there is no difference between defending against a hijacker that wants to do a September 11 thing or a hijacker who wants to go to Miami. The key word is you’re defending against a hijacking, and you worry about his motivation later.”⁵⁹⁷ In 1990, the President’s Commission on Aviation Security and Terrorism noted that the airline industry referred to checkpoint screening “as the first line of defense. It may, in fact, be the last line of defense. If someone is able to defeat this security measure, that person can gain access to passengers, crew and aircraft with relative ease.”⁵⁹⁸

We turn now to how prescreening worked on September 11 with respect to the four hijacked flights.

9/11 CHECKPOINTS

United was the custodial air carrier for three of the checkpoints used to screen the passengers of the hijacked flights, and American was responsible for two.⁵⁹⁹

<u>Airport</u>	<u>Flight</u>	<u>Checkpoint</u>	Airline/Screening Company
Logan (Boston)	AA 11	North (Main or B5) Checkpoint	American/Globe
Logan (Boston)	AA 11	Mid (B4) Checkpoint	American/Globe
Logan (Boston)	UA 175	Checkpoint C3	United/Huntleigh
Newark	UA 93	Terminal A, Checkpoint 1	United/Argenbright
Washington Dulles	AA 77	Checkpoint IAD02	United/Argenbright

At each of the checkpoints, the primary method for passenger screening was walk-through metal detectors [REDACTED]

[REDACTED] If a passenger triggered the walk-through alarm, he or she was to be screened with a hand-held metal detector to identify the object triggering the alarm. Carry-on bags were primarily screened by X-ray machines, backed up by physical search, explosive trace detectors, or both.⁶⁰⁰

The exception was the checkpoint at Dulles, which relied primarily on two walk-through metal detectors. If passengers set off the alarm of the first, they were sent through the second. If they triggered the second metal detector, they were screened with the hand-held device.⁶⁰¹

Screening checkpoint for Flight 11 (Logan). Passenger screening for Flight 11 was conducted at the main checkpoint (B5).⁶⁰² Two lanes were operational. Each was outfitted with a walk-through metal detector to screen passengers and an X-ray machine to screen carry-on bags. A second screening checkpoint (B4 or middle) was opened at 7:15 A.M. This checkpoint was used primarily for "overflow" from B5.

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Screening checkpoint for Flight 175 (Logan). Passenger screening for Flight 175 was conducted at checkpoint C3. It had two operational lanes, each was with a walk-through metal detector and an X-ray machine.⁶⁰⁶

Redacted

Screening checkpoint for Flight 93 (Newark). Passenger screening for Flight 93 was conducted [REDACTED]. On that day, the checkpoint featured two lanes. Each lane was outfitted with a walk-through magnetometer, an X-ray machine, and hand-wand magnetometers.

Redacted

Screening checkpoint for Flight 77 (Dulles). Passenger screening for Flight 77 was conducted at both the east (IAD01) and west (IAD02) checkpoints in the Main Terminal. All five of the hijackers passed through the west checkpoint.⁶¹³

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████████████████████ the security checkpoints entered by the hijackers featured closed-circuit television surveillance—the checkpoint used by Mohamed Atta and Abdul Aziz al Omari at the Portland International Jetport and the one used by the Flight 77 hijackers at Dulles International Airport.

Commission staff reviewed the available videotapes to assess the security procedures applied to the hijackers. Because there was no video surveillance at Logan and Newark airports, the Commission was unable to assess the security procedures used to screen Flights 175, 11, and 93.

Supervisors and screening staff interviewed by law enforcement did not report any suspicions or problems associated with the screening of the hijackers. We have found no evidence to dispute these claims. However, at the request of the Commission staff, an expert in checkpoint security regulatory enforcement reviewed the videotapes from Portland and Dulles airports. With respect to Dulles International Airport, the expert told us that the quality of the screening of the hijackers was "marginal at best." He noted the following deficiencies: incomplete and sloppy hand-wanding procedures, the failure to resolve why two hijackers set off the walk-through magnetometers, the absence of "random and continuous" secondary screening of carry-on baggage, and the failure to properly rotate positions at the checkpoint.⁶¹⁹ With respect to Portland, he noted the absence of "random and continuous" secondary screening of carry-on baggage as required by the FAA, using either equipment to swipe the items for explosives or a physical search of the bag, which would have given screeners a better chance of finding the hijackers' weapons.⁶²⁰

Onboard Security

If the preflight layers of aviation security designed to keep dangerous people and weapons off the aircraft failed, onboard defenses represented the last chance to thwart an attack. FAA operated a Federal Air Marshal program to place specially trained law enforcement officials aboard high-risk flights.

In 2001, the program had 33 air marshals, a small fraction of its strength in the 1970s. The decline began after the implementation of checkpoint screening. A senior aviation security official told us that by the mid-1990s, air marshals were assigned exclusively to high-risk international flights on the basis of the prevailing threat assessment.⁶²¹ The highest-ranking FAA security official on 9/11 told us that the FAA did not discuss the need for a stronger domestic air marshal program, because the threat was considered to be overseas; in support of that view, he cited the fact that there had been no domestic hijackings in many years.⁶²²

FAA Administrator Garvey told us that the air marshal program had already been greatly diminished by the time she took office, and she and others—including members of Congress—thought other FAA needs had higher priority.⁶²³ Another FAA official told us that air carriers did not want to give up the revenue they lost by providing free seats to air marshals.⁶²⁴ Yet the air carriers' trade association had recommended to the Gore Commission in 1997: "Utilize Federal Air Marshals Effectively: Announce the immediate deployment of Federal Air Marshals at airport locations determined to warrant special security measures."⁶²⁵ [REDACTED]

[REDACTED]⁶²⁶ For a variety of reasons, therefore, the domestic air marshal program remained dormant.

Absent the presence of an armed and trained air marshal aboard, the crew was expected to respond to a hijacking in accordance with the FAA-approved tactics of the "Common Strategy."⁶²⁷ This strategy, in which all flight crews were required to be trained, taught them to refrain from trying to overpower or negotiate with hijackers, to land the aircraft as soon as possible, to communicate with authorities, and to try delaying tactics.⁶²⁸

The strategy drew on previous experiences with domestic hijackings and aimed at getting passengers, crew, and hijackers safely landed. It offered no guidance for confronting a suicide hijacking.⁶²⁹ One of the FAA officials most involved with the Common Strategy in the period leading up to 9/11 described it as an approach dating back to the early 1980s, developed in consultation with the industry and the FBI, and based on the historical record of hijackings. It was last updated in 1997.

The goal of the strategy was to "optimize actions taken by a flight crew to resolve hijackings peacefully" through systematic delay and, if necessary, accommodation of the hijackers. The FAA believed that the longer a hijacking persisted, the more likely it was to have a peaceful resolution. The strategy's fundamental assumptions were that hijackers issued negotiable demands, most often for asylum or the release of prisoners, and that "suicide wasn't in the game plan."⁶³⁰ One aviation security commentator noted, "To the extent that the politically-motivated hijacking was even considered, it was lumped with all the others whose perpetrators had no suicidal intent, and thus could arguably be talked into a safe and non-lethal surrender, given enough time and aircrew patience."⁶³¹

A frequently asked question about the 9/11 attacks is, How did the hijackers get into the cockpit? While FAA flight rules required the cockpit door to remain closed and locked at all times,⁶³² FAA regulations also required that the door be designed to facilitate the flight crew's entry and exit in the event of an emergency. Even if hardened cockpit doors had been installed, they would have been effective only with proper policy, management, and procedures to safeguard cockpit keys.⁶³³ As of 9/11, one key opened the cockpits of all Boeing aircraft.

Moreover, a senior airline security executive pointed out that a hardened door would not have helped on 9/11, because the Common Strategy was to cooperate.⁶³⁴ Indeed, the chairman of the Security Committee of the Air Line Pilots Association agreed. According to media accounts, when proposals were made in early 2001 to install reinforced cockpit doors, the chairman responded: "But even if you make a vault out of the door, if they have a noose around my flight attendant's neck, I'm going to open the door."⁶³⁵

The FAA acknowledged the possibility of suicide hijacking in its intelligence assessments. It understood that suicide was an increasingly common tactic among terrorists in the Middle East and that, historically, civil aviation was a favored target of terrorists. Nevertheless, the FAA-approved training for commercial flight crews contained no guidance on how to respond if hijackers were bent on suicide, resorted to violence on the aircraft, or attempted to unseat the flight crew from the cockpit. One air carrier's video presentation called on flight crew to "keep aggression out of the

cockpit.”⁶³⁶ However, the Commission staff could find no instructional material addressing how that could be accomplished.⁶³⁷

The same training video, produced in 1984, showed actors playing hijackers holding a short-bladed knife to the throat of a flight crew member. The video said “knives are always a threat and have been used by hijackers in the past.”⁶³⁸ Another air carrier’s training material included a CBS news report about a knife-wielding hijacker addicted to aviation video games who broke into the cockpit so that he might fly the plane. The hijacker killed the pilot and seized the controls before he was subdued by the co-pilot. The training material stated, “While this proved to be successful in this incident, remember, the Common Strategy tells us not to attempt to overtake a hijacker.”

Thus, prior to 9/11, onboard security was a security layer only in the most modest sense of the term—a particularly ineffective barrier to those whose violent intentions reflected the growing terrorist trend to maximize casualties, rather than follow the traditional model of hijacking for transport or barter.

Former FAA administrator Jane Garvey summarized the Common Strategy and its relation to the 9/11 attacks as follows:

The most powerful weapons that hijackers carried on 9/11 . . . was their knowledge that our aviation system’s policy was to get the passengers on the ground safely and that meant negotiation, not confrontation. We can all share some blame in hindsight for not seeing the jeopardy of the policy. But it was developed and continued over decades as a policy that we knew from experience would save lives.⁶³⁹

A Layered System?

In addition to designating aviation security as a “national security issue,” the Gore Commission in 1997 reiterated the importance of security layering. The panel stated that “aviation security should be a system of systems, layered, integrated and working together to produce the highest possible levels of protection.”⁶⁴⁰ The National Research Council, in a major study of aviation security, also strongly endorsed this principle.⁶⁴¹

The concept of “layering” in the realm of aviation security is closely related to the principle of “redundancy” incorporated into aviation safety policy and regulation. The U.S. civil aviation system requires all critical flight systems to be backed up by redundant capabilities.⁶⁴² This policy aims at reducing the chances that failure at a single point could result in a catastrophic accident. Because the mathematical chances that two systems will fail simultaneously are far less than the probability that either of the systems will fail independently, redundancy is an effective risk management strategy. Indeed, civil aviation safety policies, designed to reduce the risk of catastrophic systems failure to one in a billion, are based partly on this principle.⁶⁴³

Achieving such a precise and ambitious mathematical goal is difficult in any discipline; it is even a greater challenge in the area of aviation security, where human factors, such as criminal imagination and screener performance, predominate.⁶⁴⁴ Nevertheless, aviation experts have long agreed that effective layering in security, like redundancy in safety, can greatly reduce the likelihood of catastrophic failure. Realizing the potential benefits of a layered system, however, rests on two key factors.

First, the layers must be designed to guard against the right problems. For instance, a security checkpoint not designed to stop knives, and onboard security not designed to stop a suicide hijacker, may represent two layers of security, but they will not defeat a knife-wielding suicide hijacker.

Second, each layer must effectively address in its own right whatever it is designed to prevent. Two ineffectual layers operating in tandem may be little or no better than a single defense. Given the serious holes in aviation security demonstrated by the system's performance on 9/11 and discussed above, it is difficult to conceive of the defenses in place on that day as a "system of systems, layered, integrated and working together to produce the highest possible levels of protection."

As DOT Inspector General Kenneth Mead testified before the Commission:

I think that the system we had in place before September 11 had in fact undergone incremental improvements over the years . . . and I believe in fact it provided a deterrent value for certain types of threat. Overall, though, the model on which the system was based did not work very well, and there were significant weaknesses in the protections it provided, even for the types of threats the system was designed to prevent.⁶⁴⁵

2.3 THE STAGE IS SET

Throughout 2001, the senior leadership of the FAA was focused on congestion and delays within the system and the ever-present issue of safety, but they were not as focused on security.⁶⁴⁶ The Administrator recalled that "every day in 2001 was like the day before Thanksgiving."⁶⁴⁷ The Deputy Administrator told the Commission that not a day went by in the spring of 2000 through the summer of 2001 that system delays were not priorities for him and the Administrator.⁶⁴⁸

Heeding calls for improved service and increased capacity, Congress focused its legislative and oversight attention on measures to improve the capacity, efficiency, and customer service of the aviation system. Its efforts included passage of a "passenger bill of rights," mainly to ensure greater convenience and comfort for passengers. The air carriers' trade association chief pointed out that all the while, the Department of Transportation was rating the air carriers by their on-time arrival records which added pressure to the effort to process people with great speed.⁶⁴⁹ At the same time, the air carriers were struggling to keep up with demand, provide better customer service, and improve their economic health.

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The American public—the customers of the aviation industry and the constituents of members of Congress—were generally sanguine about commercial aviation safety and security in the period leading up to 9/11. In an ABC poll taken just after the 1999 EgyptAir crash off the East Coast of the United States, 58 percent of the respondents indicated their belief that flying was safer than driving; and in a Fox News/Opinion Dynamics survey conducted during the same period, 78 percent cited poor maintenance as “a greater threat to airline safety” than terrorism.⁶⁵⁰

On September 11, 2001:

- The no-fly lists updated by FAA security directives offered an opportunity to prevent potential hijackers from boarding civilian aircraft in or traveling to the United States. As of September 11, 2001, only 12 individuals were listed—and not any of the 9/11 hijackers, even though two of them (Khalid al Mihdhar and Nawaf al Hazmi) were already on the State Department’s TIPOFF terrorist watchlist (which contained more than 60,000 names).
- Checkpoint screener performance and the detection rate of prohibited items at airport checkpoints were spotty, and these weaknesses were widely known.
- Deadly knives were permitted aboard aircraft despite FAA’s recognition that this policy was a vulnerability.
- A wide range of deadly weapons were undetectable by the screening equipment using the sensitivity levels then employed at security checkpoints.
- Selectees of the passenger prescreening risk profiling system (CAPPS) were subject to a search of their checked bags for explosives but underwent no additional scrutiny of their person or carry-on baggage.
- The official aircrew protocol for hijacking was cooperation and accommodation.

Thus, on 9/11 the challenge for would-be hijackers of domestic flights of U.S. air carriers boiled down to grasping three easily understood points: avoid prior notice by the U.S. intelligence and law enforcement communities, carry items that could be used as weapons that were either permissible or not detectable by the screening systems in place, and understand the in-flight hijacking protocol.

While intelligence authorities perceived the continuing terrorist threat to civil aviation, on September 10, 2001, the view of policymakers, air carriers, and the public contemplating civil aviation security was that there had not been a hijacking or bombing of a U.S. air carrier in many years and that aviation security measures were apparently gaining ground against the terrorists.⁶⁵¹

In fact, the system was broken.

1 Colgan Air is a US Airways Express carrier providing regional service to east coast destinations. US Airways and American Airlines had an agreement that allowed passengers to make reservations for both airlines in the same booking.

2 FBI report, “The Final 24 Hours,” Dec. 8, 2003.

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3 Michael T. interview, (May 27, 2004); FBI report of investigation, interview of Diane G., Sept. 19, 2001.

4 Michael T. interview, (May 27, 2004).

5 CAPPS was an FAA-approved automated system run by the airlines that scored each passenger's profile to identify those who might pose a threat to civil aviation, and identified other passengers at random to be selectees. Also, ticket agents were to mark as "selectees" those passengers who failed to show proper identification, or met other criteria. See FAA report, "Air carrier Standard Security Program," May 20, 2001, pp. 75-76; FAA record of interview, Donna Thompson, Sept. 23, 2001. See Al Hickson briefing (June 8, 2004).

6 FAA report, "Air Carrier Standard Security Program," May 20, 2001, pp. 75-76.

7 Portland International Jetport briefing, (Aug. 18, 2003).

8 FBI report, "The Final 24 Hours," Dec. 8, 2003. See also FBI report, "Copy of surveillance video, ATTA/ALOMARI in Portland, Maine," Sept. 11, 2001.

9 Portland International Jetport briefing, (Aug. 18, 2003).

10 FBI report of investigation, "Copy of Surveillance Video ATTA/ALOMARI in Portland, Maine," Sept. 11, 2001.

11 FBI report of investigation, interview of Kenneth Anderson, Sept. 11, 2001.

12 US Airways record, passenger manifest for Colgan Air Flight No. 5930 on September 11, 2001.

13 FBI report of investigation, interview of Kenneth Anderson, Sept. 11, 2001.

14 FBI report of investigation, interview of Susan Yochelson, Oct. 12, 2001.

15 The FBI's Portland office pursued 600 leads related to the presence of Atta and Omari in Portland, with each lead resulting in between 3 and 10 interviews. The Portland police pursued more than 60 leads regarding the presence of Atta and Omari, but none shed any light on the question of their travel to and from Portland, Maine. South Portland Police Chief and authorities with the Maine State Police also indicated that while their departments did investigate the hijackers' trip to Portland and shared the results of their work with the FBI, they turned up no information to indicate why this travel occurred. See Michael Chitwood briefing, undated; See also Edward Googins briefing, (June 21, 2004); and William Snedeker briefing, (June 21, 2004).

16 As the operational leader, Atta would have been particularly inclined to have such concerns and may have believed he was the one most likely to have been identified and placed under surveillance by U.S. authorities.

17 FBI response to Commission briefing request no. 6, undated (topic 11).

18 Tom Kinton interview, (Nov. 6, 2003).

19 See also, Matt Carroll, "Fighting Terror Sense of Alarm; Airlines Foiled Logan Police Probe," Boston Globe, Oct. 17, 2001, p. B1.

20 The FBI also reported that on Aug. 27, 2001, Atta possibly attempted to purchase box cutters in Florida. Among the possessions Atta left behind was a large folding knife. FBI report, "Summary of Pentbom Investigation," Jan. 31, 2003.

21 See FBI report of investigation, witness, Sept. 11, 2001.

22 FBI report, "The Final 24 Hours," December 8, 2004. A rental car associated with Al-Shehri was found later in the day in the Logan parking lot. An individual who had parked his car in the lot in order to catch an early morning flight from Boston reported that three Middle Eastern men were parked in a car next to him. One of the men opened their car door to exit, effectively preventing the traveler from getting out of his car. After a time, he grew tired of waiting for the individual who was "fiddling with his things" to collect his belongings and depart. At that point, the citizen pushed the others' car door away from his and up against the Middle Eastern man so that he could exit. The citizen reported that the three subjects said nothing to either him or each other and offered no response. When he heard about the attacks, he contacted the authorities to report the incident. See FBI report of investigation, interview with witness, Sept. 11, 2001. Logan parking records showed that rental cars associated with the hijackers had been in and out of the airport's parking facility over several days previous to 9/11. Massport report, response to Commission questions for the record, undated.

23 TSA report, "Selectee Status of September 11th Hijackers," (undated).

24 TSA report, "Selectee Status of September 11th Hijackers," (undated).

25 The two bags that Atta checked in Portland were not loaded aboard Flight 11 before the flight departed. A witness from American Airlines told the FBI that the bags came over from US Airways to American's baggage area too late to make it on to the flight. The bag tags were marked designating them to be put

aboard the airline's next flight to Los Angeles. After the attacks the bags were opened and law enforcement officers found a Koran, tape on flying a jetliner, a large folding knives and a distance measuring ruler. See FBI report of investigation, interview of witness, Sept. 19, 2001.

26 FAA report, "Air Carrier Standard Security Program," May 20, 2001.

27 FAA briefing materials, "Assessment and Testing Data for BOS, EWR, and IAD," Oct. 24, 2001.

28 Air Transport Association/Regional Airlines Association (ATA/RAA) report, "Air Carriers Checkpoint Operations Guide," Aug. 1999; FAA report, "Air Carrier Standard Security Program," May, 2001,

29 FBI reports of investigation, interview of Nilda Cora, Oct. 4, 2001. See also, Mary Carol Turano interview (Mar. 11, 2004). See also, FBI reports of investigation, supervisor of B4 checkpoint, Sept. 15, 2001.

30 FBI response to Commission briefing request no. 6, undated (topic 11). [LES]

31 The times for check-in and boarding for the American flights are approximate because the airline's reservations and ticketing systems did "not provide exact times for such activities." See American Airlines report, "SABRE response for Flight 11, September 11, 2001,"; The records for Flight 11 indicated that some passengers had "boarded" after the aircraft had pushed back from the gate. AAL response to Commission questions for the record, Mar. 15, 2004.

32 AAL response to Commission questions for the record, Mar. 15, 2004.

33 AAL record, Dispatch Environmental Control/Weekly Flight Summary for Flight 11, Sept. 11, 2001.

34 AAL report, "Flight Attendant Jump Seat Locations During Takeoff and Flight Attendant Typical Cabin Positions During Start of Cabin Service," undated.

35 AAL record, "Schematic of 767 aircraft," undated.

36 AAL record, "Passenger Name List Flight 11/September 11," undated.

37 AAL report, "Average Load Factor by Day-of Week," undated (for Flights 11 and 77 from June 11, 2001 to Sept. 9, 2001); AAL response to the Commission's supplemental document requests, Jan. 20, 2004.

38 FBI report, "Summary of Pentibon Investigation," Jan. 31, 2003; The FBI investigated individuals who were "no shows" for the flights and did not find terrorist links. See also, FBI response to Commission briefing request no. 6, undated (topic 11). [LES]

39 American Airlines response to Commission questions for the record, Mar. 15, 2004. See also, American Airlines record, Dispatch Environmental Control/Weekly Flight Summary for Flight 11, Sept. 11, 2001.

40 Craig Marquis and others interview (Nov. 19, 2003).

41 14 CFR § 121.587, "Closing and locking of flight crew compartment door."

42 Each American Airlines flight was assigned a "dispatcher" by the air carrier. The dispatcher located in the airline's operations center at its Texas headquarters was responsible for authorizing and monitoring the operation of the flight. See AAL system operations control personnel interview (Jan. 8, 2004).

43 JET A fuel was the type used on 9/11 and the normal fuel used by the airline. For amount loaded on Flight 11 see AAL record, Dispatch Environmental Control/Weekly Flight Summary for Flight 11, Sept. 11, 2001; American Airlines response to Commission questions for the record, Mar. 15, 2004.

44 AAL record, Dispatch Environmental Control/Weekly Flight Summary for Flight 11, Sept. 11, 2001.

45 NTSB report, "Flight Path Study—American Airlines Flight 11," Feb. 19, 2002; Commission analysis of NTSB and FAA air traffic control and radar data; System Operations Control interviews interview (Jan. 8, 2004).

46 United flight operations briefing (Nov. 20, 2003).

47 NTSB report, Air Traffic Control Recording—American Airlines Flight 11, Dec. 21, 2001; FAA report, Aircraft Accident File ZBW-ARTCC-148, Feb. 15, 2002.

48 American Airlines, "Flight Attendant Jump Seat Locations During Takeoff and Flight Attendant Typical Cabin Positions During Start of Cabin Service for Flights 11 and 77," undated.

49 Given that the Flight 11 cockpit crew had been acknowledging all previous instructions from ATC that morning within a matter of seconds, and that when the first reporting of the hijacking was received a short time later (Betty Ong's 8:18:47 call) a number of actions had already been taken by the hijackers, it is most likely that the hijacking of Flight 11 occurred at 8:14 A.M. or very shortly thereafter.

50 8:18:47 a.m. according to phone records. FBI report, "American Airlines Airphone Usage," Sept. 20, 2001.

51 Nydia Gonzalez interview (Nov. 19, 2003).

52 Nydia Gonzalez interview (Nov. 19, 2003).

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53 AAL transcript, telephone call from Betty Ong to Nydia Gonzalez, Sept. 11, 2001.

54 "Daniel Lewin," Washington Post, Sept. 22, 2001, p. B7.

55 AAL transcript, telephone call from Betty Ong to Nydia Gonzalez, Sept. 11, 2001.

56 AAL System Operations Control interviews (Jan. 8, 2004).

57 Under FAA rules all aircraft traveling over 10,000 feet are required to emit a signal while in flight. This signal was received by FAA to create a radar image providing aircraft identification and some flight information. See DOD radar file, 84th Radar Evaluation Squadron, "9/11 autoplay." Also, see NTSB, "Flight Path Study—American Airlines Flight 11," Feb. 19, 2002.

58 AAL transcript, telephone call from Betty Ong to Nydia Gonzalez, Sept. 11, 2001; AAL transcript, telephone call from Nydia Gonzalez to Craig Marquis, Sept. 11, 2001.

59 Michael Woodward interview (Jan. 25, 2004).

60 FBI report, "American Airlines Airphone Usage," Sept. 20, 2001.

61 Most ACARS messages include ellipses in the original message. They do not signify deleted material; AAL record, Dispatch Environmental Control/Weekly Flight Summary for Flight 11, Sept. 11, 2001.

62 AAL transcript, telephone call from Betty Ong to Nydia Gonzalez, Sept. 11, 2001; AAL transcript, telephone call from Nydia Gonzalez to Craig Marquis, Sept. 11, 2001.

63 AAL transcript, telephone call from Nydia Gonzalez to Craig Marquis, Sept. 11, 2001.

64 FBI report, "American Airlines Airphone Usage," Sept. 20, 2001.

65 FAA report, ZBW-ARTCC-148,46R, at 8:24:38, and 8:24:56; see also, Peter Zalewski interview (Sept. 23, 2003).

66 FAA memo, "Full Transcript; Aircraft Accident; AAL 11; New York, NY; September 11, 2001," Feb. 15, 2002. p.11; Peter Zalewski interview (Sept. 23, 2003).

67 Peter Zalewski interview (Sept. 23, 2003); John Schippani interview (Sept. 22, 2003).

68 American Airlines record, Dispatch Environmental Control/Weekly Flight Summary for Flight 11, Sept. 11, 2001.

69 Michael Woodward interview (Jan. 25, 2004).

70 Terry Biggio interview (Sept. 22, 2003) and Dan Bueno interview (Sept. 22, 2003); and Daily Record of Facility Operation, Boston Center, OMIC Position, page 1, (September 11, 2001).

71 AAL transcript, telephone call from Nydia Gonzalez to Craig Marquis, Sept. 11, 2001.

72 FAA audio file, Herndon Command Center, position # 15, at 8:28; Daniel Bueno interview (Sept. 22, 2003).

73 AAL transcript, telephone call from AAL System Operations Control to Boston FAA Air Traffic Control center, Sept. 11, 2001; AAL transcript, telephone call from Nydia Gonzalez to Craig Marquis, Sept. 11, 2001.

74 FAA recording, ATCSCC, NOM Position, Line 4525, Sept. 11, 2001.

75 FBI report, "American Airlines Airphone Usage," Sept. 20, 2001. In trying to regain a connection after her 8:25 A.M. call had been cut off, Sweeney was also connected briefly at 8:29 A.M.

76 Michael Woodward interview (Jan. 25, 2004); AAL notes, Michael Woodward handwritten notes, Sept. 11, 2001; FBI report of investigation, interview of Michael Woodward, Sept. 13, 2001; AAL report, interview of Michael Woodward, Sept. 11, 2001; AAL transcript, telephone call from Nancy Wyatt to Ray Howland, Sept. 11, 2001.

77 Michael Woodward interview (Jan. 25, 2004).

78 Gerard Arpey interview (Jan. 8, 2004).

79 AAL transcript, telephone call from Nydia Gonzalez to Craig Marquis, Sept. 11, 2001.

80 American Airlines response to Commission questions for the record, April 26, 2004 and July, 2004.

81 AAL transcript, telephone call from Nydia Gonzalez to Craig Marquis, Sept. 11, 2001.

82 FAA memo, "Full Transcript; Aircraft Accident; AAL 11; New York, NY; September 11, 2001," Feb. 15, 2002. p.12.

83 Terry Biggio interviews (Sept. 22, 2003 and Jan. 8, 2004); Daniel Bueno interview (Sept. 22, 2003); FAA audio file, Herndon Command Center New York Center position, line 5114, September 11, 2001, from 8:30 to 8:46.

84 AAL transcript, telephone call from Nydia Gonzalez to Craig Marquis, Sept. 11, 2001.

85 AAL transcript, telephone call from Nydia Gonzalez to Craig Marquis, Sept. 11, 2001.

86 AAL transcript, telephone call from Nydia Gonzalez to Craig Marquis, Sept. 11, 2001; AAL report, SOCC Chronology, Jan. 15, 2002. At 8:38 A.M. and 8:48 A.M. additional ACARS messages were sent

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from the airline to Flight 11 requesting that the pilot contact Air Traffic Control. See AAL record, American Airlines record, Dispatch Environmental Control/Weekly Flight Summary for Flight 11, Sept. 11, 2001.

⁸⁷ AAL transcript, telephone call from Nydia Gonzalez to Craig Marquis, Sept. 11, 2001. AAL also sent ACARS messages asking Flight 11 to contact FAA Air Traffic Control at 8:38 A.M. and 8:48 A.M.

88 Published timelines from the FAA and NORAD place the notification time at 8:40. NEADS recordings indicate, however, that the actual call came in at 8:37:15 to the Weapons Director Technician position, Channel 14.

89 Published timelines from the FAA and NORAD place the notification time at 8:40 A.M. NEADS recordings indicate, however, that the actual call came in at 8:37:15 A.M. to the Weapons Director Technician position, Channel 14. Robert Marr interview (Jan. 23, 2004).

90 Larry Arnold testimony (May 23, 2003).

91 Larry Arnold, quoted in Air War Over America, by Leslie Filson, p. 56.

92 William A. Scott testimony (May 23, 2003).

93 Michael Woodward interview (Jan. 25, 2004).

94 For report on passengers see Michael Woodward interview (Jan. 25, 2004); AAL transcript, telephone call from Nancy Wyatt to Ray Howland, Sept. 11, 2001. The other flight attendants were assisting their fellow attendants who had been injured and passengers while Ms. Ong and Sweeney remained in communication with ground authorities.

95 AAL transcript, telephone call from Nydia Gonzalez to Craig Marquis, Sept. 11, 2001; FAA rules require air carriers to provide immediate notification of an "act or suspected act of airplane piracy." [REDACTED]

[REDACTED] May 20, 2001, [REDACTED]

96 AAL transcript, telephone call from Nydia Gonzalez to Craig Marquis, Sept. 11, 2001.

97 AAL transcript, telephone call from Nydia Gonzalez to Craig Marquis, Sept. 11, 2001.

98 Michael Woodward interview (Jan. 25, 2004).

99 AAL, transcript of call from Nancy Wyatt to Ray Howland, Sept. 11, 2001.

100 AAL security interview (Jan. 8, 2004).

101 NEADS audio file, Mission Crew Commander position, Channel 2, at 8:44:48.

102 NEADS audio file, Mission Crew Commander position, Channel 2, at 8:44:58.

103 Joseph McCain interview (Oct. 28, 2003); Dawne Deskins interview (Oct. 30, 2003).

104 NTSB report, "Flight Path Study—American Airlines Flight 11," Feb. 19, 2002.

105 American Airlines response to Commission questions for the record, April 26, 2004 and July 7, 2004; Gerard Arpey interview (Jan. 8, 2004).

106 Peter Zalewski interview (Sept. 23, 2003.)

107 AAL transcript, telephone call from AAL system operations control to FAA Air Traffic Control System Command Center, Sept. 11, 2001.

108 Boston Center was reporting information it had received from an FAA headquarters teleconference. NEADS audio file, Identification Technician position, Channel 7, at 9:21:10.

109 The report of Flight 11 heading south – the cause of the Langley scramble – is reflected not just in taped conversations at NEADS, but in taped conversations at various FAA centers, on NORAD's instant messaging system, and on taped conversations of the Pentagon-convened "significant event" (which transitioned to an "air threat") conference call. The report was also readily acknowledged in Commission interviews of operational personnel in FAA and NORAD. Nonetheless, it is not recounted in a single public timeline or statement issued by the FAA or the Department of Defense. Instead, the scramble at Langley was publicly attributed to the reported hijacking of Flight 77, Flight 93, or some combination of the two.

110 Kevin J. Nasypyany interview (Jan. 22-23, 2004). (9:09 A.M. NEADS ordered alert fighters at Langley Air Force Base to battle stations (in response to receiving word that Flight 175 had crashed into the World Trade Center).

111 NEADS Mission crew commander technician log, Sept. 11, 2001.

112 Kevin J. Nasypyany interview (Jan. 23, 2004).

113 NEADS audio file, Mission Crew Commander position, Channel 2, at 9:28:16.

114 DOD radar files, 84th Radar evaluation squadron, "9/11 Autoplay."

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115 AAL report, "Systems Operation Command Center (SOCC) Chronology for September 11, 2001," Jan. 15, 2002.

116 FAA security personnel interview (Sept. 11, 2003).

117 AAL security personnel interview (Nov. 19, 2003).

118 AAL transcript, telephone call from Betty Ong to Nydia Gonzalez, Sept. 11, 2001; AAL transcript, telephone call from Nydia Gonzalez to Craig Marquis, Sept. 11, 2001; Nydia Gonzales interview (Nov. 19, 2003); Michael Woodward interview (Jan. 25, 2004); Michael Woodward notes, Sept. 11, 2001; AAL, email from Woodward to Schmidt, "Flight 11 Account of Events," Sept. 19, 2001.

119 AAL transcript, telephone call from Nydia Gonzalez to Craig Marquis, Sept. 11, 2001;

120 FBI report, "Summary of Pentbom Investigation," Jan. 31, 2003.

121 FBI report, "Summary of Pentbom Investigation," Jan. 31, 2003.

122 Jawahir recalled that her encounter with the Ghamdis occurred at "shortly before 7 A.M., and when shown photos of the hijackers she indicated that Mohand Al Shehri resembled one of the two she checked in. Thus, her experience may have actually been with Fayed Banihammad and Mohand al Shehri, who checked in at 6:53 A.M. However, Jawahir recalled that the two individuals she spoke with had the same last name and had assigned seats on Row 9, characteristics that both fit the Ghamdis; therefore, that account has been adopted here. In either case, it is almost certain that she was dealing with one set of the hijackers. UAL, "Flight 175—11Sep01 Passenger ACI Check-in History," July 11, 2002.

123 UAL, "Flight 175—11Sep01 Passenger ACI Check-in History," July 11, 2002.

124 FBI report of investigation, interview of Manuel Carreiro, Sept. 28, 2001.

125 FBI reports of investigation, interviews of Gail Jawahir, Sept. 21, 2001 and Sept. 28, 2001. Customer service representative Gail Jawahir recalled that her encounter with the Ghamdis occurred at "shortly before 7 A.M., " and when shown photos of the hijackers, she indicated that Mohand al Shehri resembled one of the two she checked in (suggesting they were Banihammad and Shehri). However, she also recalled that the men had the same last name and had assigned seats in row 9 (i.e. the Ghamdis), and that account has been adopted here. In either case, she almost certainly was dealing with one set of the Flight 175 hijackers.

126 UAL, "Flight 175—11Sep01 Passenger ACI Check-in History," July 11, 2002.

127 UAL, "Flight 175—11Sep01 Passenger ACI Check-in History," July 11, 2002.

128 Logan Site Visit and Briefing (Aug. 15, 2003).

129 FBI response to Commission briefing request no. 6, undated (topic 11).

130 UAL, "Flight 175—11Sep01 Passenger ACI Check-in History," July 11, 2002.

131 TSA report, "Selectee Status of September 11th Hijackers," (undated).

132 The time range for checkpoint screening of the hijackers is that between check-in and boarding: Marwan al Shehhi (6:45 A.M.–7:27 A.M.); Fayed Banihammad (6:53 A.M.–7:23 A.M.); Mohand al Shehri (6:53 A.M.–7:23 A.M.); Ahmed al Ghamdi (6:20 A.M.–7:27 A.M.); Hamza al Ghamdi (6:20 A.M.–7:27 A.M.).

133 FBI reports of investigation, interviews of William Thomas, Sept. 14, 2001; Jennifer Gore, Sept. 12, 2001; Claudia Richey, Sept. 15, 2001.

134 UAL, "Flight 175—11Sep01 Passenger ACI Check-in History," July 11, 2002; UAL, response to Commission questions for the record, May 13, 2004.

135 FAA report, "Executive Summary Chronology of a Multiple Hijacking Crisis, September 11, 2001," September 17, 2001.

136 UAL report, "United Flight 175: Flight Attendant Positions/Jumpseats," undated.

137 FAA report, "Executive Summary Chronology of a Multiple Hijacking Crisis, September 11, 2001," September 17, 2001; UAL report, Flight 175, Flight Data Recap; UAL response to Commission questions for the record, May 13, 2004.

138 Flight 175 was canceled on Monday, July 16, 2001, and contained a load factor of only 28.6 percent on Wednesday, August 29, 2001.

139 In addition, the September 11, 2001 passenger load was similar to the loads on comparable Tuesday dates in 1999 (37.2 percent on 9/14/99) and 2000 (36.6 percent on 9/12/00). UAL report, "Flight 175 BOS-LAX Load Factors," undated (from June 1, 2001 to Sept. 11, 2001); UAL report, "Explanation of Load Factors."

140 FBI report, response to Commission briefing request no. 6, undated (topic 8).

141 UAL record, "Weight and Balance Information—Flight number 175, Sept. 11, 2001."

142 UAL, "United Flight 175: Flight Attendant Positions/Jumpseats," undated; UAL flight operations briefing (Nov. 20, 2003)

143 UAL response to Commission questions for the record, April 5, 2004.

144 Ed Ballinger interview (Apr. 14, 2004).

145 FAA, "Executive Summary Chronology of a Multiple Hijacking Crisis, September 11, 2001," September 17, 2001; NTSB report, "Flight Path Study—United Flight 175," Feb. 19, 2002.

146 FAA Memo, "Full Transcript; Aircraft Accident; UAL 175; New York, NY; September 11, 2001," FAA Boston Center, position 47R. FAA transcripts of air traffic controllers' communications with Flight 175 include relevant communications with the FAA's Boston and New York Centers, but are titled 'New York, NY' because the aircraft crash occurred in New York.

147 "Full Transcript; Aircraft Accident; UAL 175; New York, NY; September 11, 2001; FAA Boston Center, position 20R.

148 UAL, "United Flight 175: Flight Attendant Positions/Jumpseats," undated.

149 "FAA Memo, 'Full Transcript; Aircraft Accident; UAL 175; New York, NY; September 11, 2001,'" FAA New York Center, position 42R. On September 11, 2001, passengers aboard United Airlines flights could monitor communications between FAA air traffic controllers and the pilots by selecting channel 9 on their headsets. United Airlines is the only U.S. airline to permit passengers to monitor air traffic control communications. Commission staff's interview of a United Airlines pilot revealed that United Airlines' passengers were permitted to monitor ATC communications after September 11, 2001 and at least as late as January 2004. See Timothy Duffy interview (Jan. 7, 2004).

150 NTSB report, Air traffic Control recording—United Airlines Flight 175, Dec. 21, 2001.

151 FAA Memo, "Full Transcript; Aircraft Accident; UAL 175; New York, NY; September 11, 2001," FAA New York Center, position 42R.

152 NTSB report, Air traffic Control recording—United Airlines Flight 175, Dec. 21, 2001.

153 Interview of UAL System Operations Control Center personnel (Nov. 21, 2003).

154 UAL System Operations Control Center briefing (Nov. 20, 2003).

155 NTSB report, Air traffic Control recording—United Airlines Flight 175, Dec. 21, 2001.

156 Passenger Peter Hanson was assigned to seat 19E, but called from row 30 CDE. Another passenger was seated in 6F, but called from row 32 CDE, and passenger Brian David Sweeney was originally in 15A but called from row 31 AB. The flight attendant calls to UAL's maintenance facility in San Francisco (By dialing *fix) were made from row 31. FBI report of investigation, air phone records of for flights 93 and 175 on Sept. 11, 2001, Sept. 18, 2001; UAL report, "Flight 175—11Sep01 Passenger ACI Check-in History," July 11, 2002.

157 NTSB report, "Flight Path Study—United Flight 175," Feb. 19, 2002. Flight 175's transponder code changed nearly simultaneously with the impact of American 11 into the North Tower of the World Trade Center.

158 NTSB report, "Flight Path Study—United Flight 175," Feb. 19, 2002.

159 FAA Memo, "Full transcript; Aircraft Accident; UAL 175; New York, NY; September 11, 2001," FAA New York Center, position 42R.

160 FAA Memo, "Full transcript; Aircraft Accident; UAL 175; New York, NY; September 11, 2001," FAA New York Center, position 42R.

161 NTSB report, "Flight Path Study—United Flight 175," Feb. 19, 2002.

162 FAA memo, "Full Transcript; Aircraft Accident; UAL175; New York, NY; September 11, 2001." May 8, 2002, p. 9.

163 FAA Memo, "Full transcript; Aircraft Accident; UAL 175; New York, NY; September 11, 2001," FAA New York Center, position 42R. At 8:57, the following exchange between David Bottiglia and another New York controller occurred: "I got some handoffs for you. We got some incidents going over here. Is Delta 2433 going to be okay at thirty-three [thousand feet]? I had to climb him for traffic.

164 FBI report of investigation, air phone records for flights 93 and 175 on Sept. 11, 2001, Sept. 18, 2001.

165 FBI report of investigation, interview of Lee Hanson, Sept. 11, 2001.

166 The time of 8:52 A.M. is based on GTE Airfone records, which indicate two completed calls to the SAMC Star-fix location from Flight 175, the first of 75 seconds duration beginning at 8:52:01, and the second of 31 seconds beginning at 8:56:19. The recipient of the Star-fix call(s) from Flight 175, Marc Pollicastro, recalled only one such communication. United investigators determined that only one call was received. See UAL, letter from Jeff Plantz, United Senior Staff Investigator, to Assistant U.S. Attorney

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David J. Novak, July 31, 2002. Whether or not there were two calls or only one, the longer first communication is more consistent with Policastro's recollection of the duration and information imparted during the call. See also, interview of Marc Policastro, (Nov. 21, 2003).

167 Flight crew onboard United aircraft could contact this office by simply dialing *349 on an air phone. FBI report of investigation, interview of David Price, Jan. 24, 2002.

168 Marc Policastro interview (Nov. 21, 2003); FBI report of investigation, interview of Marc Policastro, Sept. 11, 2001; Notes of Marc Policastro, Sept. 11, 2001. Rich Miles interview (Nov. 21, 2003).

169 FBI report of investigation, interview of David Price, Jan. 24, 2002.

170 FBI report of investigation, "Lead To Contact Final Phone Numbers Called From Airphones," undated[LES]; FBI report of investigation, interview of family member related to call, Sept. 12, 2001 [LES]; and FBI report of investigation, air phone records for flights 93 and 175 on Sept. 11, 2001, Sept. 18, 2001.

171 FAA recording, ATCSCC, Pos 14C, tape 1230-1330, operations line 1540, Sept. 11, 2001.

172 UAL System Operations Control Center briefing (Nov. 20, 2003); UAL report, [System Operations Control Center personnel] September 11, 2001 Timeline.

173 Evanna Dowis interview (Sept. 30, 2003); and FAA, "Executive Summary Chronology of a Multiple Hijacking Crisis, September 11, 2001," Sept. 17, 2001.

174 NTSB report, "Flight Path Study—United Flight 175," Feb. 19, 2002.

175 FAA Memo, "Full transcript; Aircraft Accident; UAL 175; New York, NY; September 11, 2001," FAA New York Center, position 42R.

176 FBI report of investigation, air phone records for flights 93 and 175 on Sept. 11, 2001, Sept. 18, 2001.

177 FBI report of investigation, interview of Julie Sweeney, Oct. 10, 2001.

178 UAL report, Flight 175 ACARS; and FBI report of investigation, Interview of Edward D. Ballinger, January 29, 2002.

179 The Commission attempted to precisely identify the time that the SAMC notified United's headquarters about the call from the flight attendant aboard Flight 175. However, United reported that that on 9/11, none of the calls into or out of SAMC were recorded by United because the telephone system was not set up to record calls. Furthermore, "no usage billing was created for these calls. United did not keep any records of calls that left SAMC and no call-by-call detail reporting was created for calls made over this tie-line." See: UAL report, "Explanation of SAMC Phone Records for Calls to United WHQ." July 16, 2004.

180 UAL System Operations Control Center personnel interview (Nov. 21, 2003).

181 The operations center manager recalled that the operations center director's briefing on his 8:50 call to the FAA had triggered the manager's first communication with senior corporate leadership that day. UAL System Operations Control Center briefing (Nov. 20, 2003).

182 On call to airline's security chief see Marc Policastro interview (Nov. 21, 2003); UAL System Operations Control Center personnel interview (Nov. 21, 2003); UAL System Operations Control Center briefing, (Nov. 20, 2003).

183 UAL response to Commission questions for the record, July 13, 2004.

184 FBI report of investigation, air phone records for flights 93 and 175 on Sept. 11, 2001, Sept. 18, 2001.

185 FBI report of investigation, interview of Louise Sweeney, Sept. 28, 2001.

186 FBI report of investigation, air phone records for flights 93 and 175 on Sept. 11, 2001, Sept. 18, 2001.

187 Lee Hanson took two sheets of notes during the call, which served as the basis for his reconstruction of its contents. The only additional detail he recalled was that after his son had made the comment about the plane going to Chicago to fly into a building, a woman had screamed in the background. See FBI report of investigation, interview of Lee Hanson, Sept. 11, 2001.

188 FBI report of investigation, interview of Lee Hanson, Sept. 11, 2001.

189 Ed Ballinger interview (Apr. 14, 2004).

190 FAA Memo, "Full Transcript; Command Center; NOM Operational Position; September 11, 2001," Oct. 14, 2003, pp. 15-17.

191 FAA Memo, "Full transcript; Aircraft Accident; UAL 175; New York, NY; September 11, 2001," Jan. 17, 2002, p. 3.

192 FAA audio file, Herndon Command Center, New York Center position, line 5114, 9:02:34 a.m.

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193 Joseph McCain interview (Oct. 28, 2003); Robert Marr interview (Jan. 23, 2004); James Fox interview (Oct. 29, 2003); Dawne Deskins interview (Oct. 30, 2003); NEADS audio files, Identification Technician positions, channels 4, 5 and 7, 9:02 to 9:15 a.m.

194 NTSB report, "Flight Path Study—United Flight 175," Feb. 19, 2002; and staff analysis of radar data.

195 NTSB report, "Flight Path Study—United Flight 175," Feb. 19, 2002.

196 FAA audio file, Herndon Command Center, New York Center position, line 5114, 9:03:22 a.m.

197 UAL report, Flight 175 ACARS on Sept. 11, 2001; Ed Ballinger interview (Apr. 14, 2004).

198 UAL report, Flight 175 ACARS on Sept. 11, 2001.

199 FAA audio file, Herndon Command Center, New York Center position, line 5114, 9:04 a.m.

200 NEADS audio files, Identification Technician positions, channels 4, 5 and 7, 9:04 to 9:07 a.m.

Maureen Dooley interview (Oct. 27, 2003); Shelley Watson interview (Oct. 27, 2003); Stacia Roundtree interview (Oct. 27, 2003).

201 FAA audio file, Herndon Command Center, Boston Center position, line 5115, 9:05 a.m.

202 FAA audio file, Herndon Command Center, Boston Center position, line 5115, 9:05 a.m.; Michael McCormick interview (Oct. 1, 2003); David LaCates interview (Oct. 2, 2003).

203 FAA audio file, Herndon Command Center, New York Center position, line 5114, 9:07 a.m.; Terry Biggio interviews (Sept. 22, 2003; Jan. 8, 2004).

204 NEADS audio file, Mission Crew Commander position, channel 2, 9:07:32 a.m.

205 Robert Marr interview (Oct. 27, 2003); Larry Arnold interview (Feb. 3, 2004); Robert Marr, quoted in Air War Over America, by Leslie Filson, p. 60: "The plan was to protect New York City."

206 NEADS audio file, Mission Crew Commander position, channel 2, 9:08:36 a.m.; Robert Marr interviews (Oct. 27, 2003; Jan. 23, 2004); Larry Arnold interview (Feb. 3, 2004); Kevin Naspany interview (Jan. 22-23, 2004).

207 FAA Memo, "Full transcript; Aircraft Accident; UAL 175; New York, NY; September 11, 2001," Boston Center Air Traffic Controller position 31R.

208 UAL report, Mike B. September 11, 2001 Timeline.

209 UAL System Operations Control Center briefing (Nov. 20, 2003).

210 UAL report, Mike Barber September 11, 2001 Timeline; UAL report "Timeline for Dispatch/SMPDO Activities—Terrorist Crisis," undated.

211 Daniel Nash interview (Oct. 14, 2003); Timothy Duffy interview (Jan. 7, 2004); NTSB report, "Flight Path Study—United Flight 175," Feb. 19, 2002; Commission analysis of FAA radar data.

212 FAA audio file, Herndon Command Center, Boston/Cleveland Center position, line 5115, 9:15:32 a.m.; Daniel Bueno interview (Sept. 22, 2003).

213 Ellen King interview (Apr. 5, 2004).

214 Ed Ballinger interview (Apr. 14, 2004).

215 UAL report, Mike Barber September 11, 2001 Timeline. An FAA executive summary of the 9/11 hijackings, prepared on September 17, 2001 by FAA, indicated that UAL 175 was "missing from radar" at 9:20 A.M. See FAA report, "Executive Summary Chronology of a Multiple Hijacking Crisis, September 11, 2001," Sept. 17, 2001.

216 UAL report, "UAL Timeline for Operational Messages ATC/UAL—Terrorist Crisis," September 11, 2001; and Rich "Doc" Miles interview (Nov. 21, 2003).

217 Rich "Doc" Miles interview (Nov. 21, 2003).

218 UAL report, Flight 175 ACARS on Sept. 11, 2001; and Ed Ballinger interview (Apr. 14, 2004).

219 Ed Ballinger interview (Apr. 14, 2004); and FBI report of investigation, interview of Edward D. Ballinger, Jan. 29, 2002.

220 Daniel Nash interview (Oct. 14, 2003); Timothy Duffy interview (Jan. 7, 2004); NTSB report, "Flight Path Study—United Flight 175," Feb. 19, 2002; Commission analysis of FAA radar data.

221 FBI report, "Summary of Penttbom Investigation," Jan. 31, 2003.

222 AAL record, SABRE information on Flight 77, Sept. 11, 2001. As is true of Flight 11, all of the times for check-in for Flight 77 are approximate because the airline's reservations and ticketing systems did "not provide exact times for such activities." See AAL response to Commission questions for the record, Mar. 15, 2004.

223 Metropolitan Washington Airports Authority videotape, Dulles Main Terminal checkpoints, September 11, 2001.

224 Metropolitan Washington Airports Authority videotape, Dulles Main Terminal checkpoints, September 11, 2001.

225 AAL report, "SABRE information on Flight 77," Sept. 11, 2001. In response to questions from the Commission, American Airlines has been unable to locate information about the check-in time for Hani Hanjour. However, it had to have taken place between 7:25 A.M., when he may have parked the rental car in the airport parking lot, and 7:35 A.M., when he appears on the checkpoint videotape.

226 The videotape evidence reviewed by the Commission indicates that all five Flight 77 hijackers passed through the [REDACTED] checkpoint, that three of the five set off at least one magnetometer alarm, and that two set off both magnetometers and were hand-wanded. See Metropolitan Washington Airports Authority videotape, Dulles Main Terminal checkpoints, September 11, 2001. Immediately after the attacks, the FAA's Washington Civil Aviation Security Field Office (WDC CASFO) began an investigation into the screening operations at Dulles on 9/11. After interviewing 43 of the 44 screeners (the other individual was in the hospital) identified by Argenbright as being on duty on September 11, 2001, the WDC CASFO made the following report: Overall, the responses provided by the screeners were consistent. They reported nothing out of ordinary nor suspicious activity on the morning of September 11, 2001. None of the screeners on duty at the [REDACTED] checkpoints recalled handling any passengers identified as selectees. See FAA report, Washington, DC Civil Aviation Security Field Office, "Executive Summary, American Airline Flight #77: Hijacking and Crash into the Pentagon, September 11, 2001."

227 TSA report, "Selectee Status of September 11th Hijackers," (undated). See FBI report of investigation, interview of Vaughn Allex, Sept. 12, 2001; Vaughn Allex interview (July 12, 2001).

228 TSA report, "Selectee Status of September 11th Hijackers," (undated); Vaughn Allex interview (July 12, 2001).

229 TSA report, "Selectee Status of September 11th Hijackers," (undated).

230 AAL record, "SABRE information for Flight 77," Sept. 11, 2001.

231 FAA report, "Executive Summary, American Airline Flight #77: Hijacking and Crash into the Pentagon, September 11, 2001."

232 AAL record, "Flight Attendant Jump Seat Locations During Takeoff And Flight Attendant Typical Cabin Positions During Start of Cabin Service for Flights 11 and 77," undated.

233 Wednesdays were the next lowest at 40.3 percent. AAL report, "Average Load Factor by Day-of Week," undated (for Flights 11 and 77 from June 11, 2001 to Sept. 9, 2001); and AAL report, email response from Christopher R. Christensen to Commission questions for the record, January 20, 2004.

234 FBI report, response to Commission briefing request no. 6, undated (topic 8).

235 AAL record, American Airlines record, Dispatch Environmental Control/Weekly Flight Summary for Flight 11, Sept. 11, 2001; AAL response to Commission questions for the record, Mar. 15, 2004.

236 Craig Marquis, Craig Parfitt, Joe Bertapelle and Mike Mulcahy interview (Nov. 19, 2003).

237 AAL response to Commission questions for the record, March 15, 2004.

238 The departure gate was in the [REDACTED] Terminal

239 FAA report, "Chronology of the September 11, 2001 Attacks and Subsequent Events Through October 24, 2001."

240 "Partial Transcript; Aircraft Accident; AAL77; Washington, DC; September 11, 2001," Henderson radar position, Dec. 3, 2001, at 8:40:13.

241 NTSB report, "Flight Path Study—American Flight 77," Feb. 19, 2002

242 AAL report, "Flight Attendant Jump Seat Locations During Takeoff and Flight Attendant Typical Cabin Positions During Start of Cabin Service," undated.

243 NTSB report, "Flight Path Study—United Flight 77," Feb. 19, 2002; FAA recording, Indianapolis Air Traffic Control, Position HNNR, Sept. 11, 2001.

244 NTSB report, "Flight Path Study—United Flight 77," Feb. 19, 2002."

245 Primary radar contact for Flight 77 was lost because the "preferred" radar covering this geographic area did not have a "primary" radar system, the "supplemental" radar had poor primary coverage in this geographic area, and the FAA ATC software did not allow the display of primary radar data from the "tertiary" and "quadrant" radars for this geographic area. See FAA, "Summary of Air Traffic Hijack Events: September 11, 2001," Sept. 17, 2001; Richard Byard interview (Sept. 24, 2003); Linda Povinelli interview (Sept. 24, 2003).

246 NTSB report, "Flight Path Study—United Flight 77," Feb. 19, 2002; and NTSB report, Air Traffic Control Recording—American Airlines Flight 77, Dec. 21, 2001.

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247 "Partial Transcript; Aircraft Accident; AAL77; Washington, DC; September 11, 2001," Henderson radar position, at 8:57:39 (transcript dated December 3, 2001).

248 "Partial Transcript; Aircraft Accident; AAL77; Washington, DC; September 11, 2001," Henderson radar position, at 9:06:39 (transcript dated Oct. 4, 2001).

249 AAL response to Commission questions for the record, April 26, 2004; AAL report, response to Commission request for information, July 7, 2004; and AAL record, "Dispatch Environmental Control/Weekly Flight Summary: Flight 77, September 11, 2001."

250 Larry Wansley interview (Jan. 8, 2004); Gerard Arpey interview (Jan. 8, 2004)

251 NTSB report, "Flight Path Study—United Flight 77," Feb. 19, 2002.

252 FAA report, Criminal Acts Against Civil Aviation 2001, p. 40.

253 AAL report, "Systems Operation Command Center (SOCC) Chronology for September 11, 2001." Commission staff was told that shortly after 9:00 A.M., the American Airlines managing director of dispatch operations telephoned his brother who worked at United and that the director's brother told him that UAL had "some planes missing. However, the airline informed Commission staff that the brother did not recall the conversation. See Craig P. interview (Nov. 19, 2003).

254 FAA Indianapolis Center (ZID) after action report on AAL77 flight path and Commission staff analysis.

255 NTSB report, "Flight Path Study—United Flight 77," Feb. 19, 2002. One minute later, its autopilot was disconnected for about three minutes. This is based on information recovered from Flight 77's flight data recorder.

256 AAL report, "Systems Operation Command Center (SOCC) Chronology for September 11, 2001."

257 FAA report, "FAA Summary of Air Traffic Hijack Events September 11, 2001," Sept. 17, 2001: "[9:09:00] ZID notified Great Lakes Regional Operations Center a possible aircraft accident of AAL 77 due to the simultaneous loss of radio communications and radar identification." John Thomas interview (Sept. 24, 2003).

258 FAA report, "Summary of Air Traffic Hijack Events September 11, 2001," Sept. 17, 2001.

259 In his interview with the Commission, Craig Marquis placed this time at approximately 9:00 A.M., while in his interview Gerard Arpey recalled the time as between 9:05 and 9:10. The most recent information from AAL now indicates the Halleck call to Herndon took place "some time after" 9:10 A.M. No evidence relating to this call has been found in the Commission's review of the Herndon tapes and transcripts. See Craig Marquis interview (Nov. 19, 2003); Gerard Arpey interview (Jan. 8, 2004); and AAL response to Commission questions for the record, April 26, 2004; AAL report, response to Commission questions for the record, July 7, 2004.

260 FBI report, "American Airlines Airphone Usage," Sept. 20, 2001.

261 FBI report of investigation, interview of Ronald and Nancy May, Sept. 12, 2001.

262 Patty Carson interview (Nov. 19, 2003); AAL report, email response from Christopher R. Christensen to Commission in response to questions for the record, January 20, 2004.

263 Gerard Arpey interview (Jan. 8, 2004)

264 AAL transcript, telephone call from Bill Halleck to FAA ATC system Command Center; FAA recording, ATCSCC NOM Line 5149, position 34B, Sept. 11, 2001.

265 The records available for the phone calls from American Airlines Flight 77 do not allow for a determination of which of four "connected calls to unknown numbers" represent the two connections between Barbara and Ted Olson, although it is believed that all four of these calls represent communications between Barbara Olson and her husband's office (all family members of the Flight 77 passengers and crew were canvassed to see if they had received any phone calls from the hijacked flight, and only Renee May's parents and Ted Olson indicated that they had received such calls). The four calls were at 9:15:34 for one minute, 42 seconds; 9:20:15 for four minutes, 34 seconds; 9:25:48 for two minutes, 34 seconds; and 9:30:56 for four minutes, 20 seconds. FBI report, "American Airlines Airphone Usage," Sept. 20, 2001.

266 A witness in Theodore Olson's office recalled that at approximately 9:00 A.M., she received a series of six to eight collect calls from an unknown caller that did not go through. These were followed by a collect call from Barbara Olson, via an operator, which the witness accepted and transferred to Ted Olson. According to the witness, this call was followed a few (perhaps five) minutes later by a direct call from Barbara Olson, which the witness put through to Ted Olson. FBI report of investigation, interview of witness, September 14, 2001.

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267 FBI report of investigation, interview of Theodore Olson, Sept. 11, 2001; FBI report of investigation, interview of witness, Sept. 4, 2001.

268 The Department of Justice's Command Center Watch Log contained an entry at 9:33 indicating that. Ted Olson had contacted the center to apprise them of the call from his wife, and requested that someone for the command center come to his office. Department of Justice record, "Department of Justice Command Center Watch Officer Log, 0001-2400 HRS, September 11, 2001."

269 John Thomas interview (Sept. 14, 2003).

270 Command Center, Position # 25(B), Miller Transcript, Parts 2-4, pp. 5-6.

271 FBI report, "American Airlines Airphone Usage," Sept. 20, 2001.

272 FBI record of investigation, interview of Theodore Olson, Sept. 11, 2001.

273 FAA recording, Herndon Command Center Tape, NTMO Position #26, Line 4530 (FAA Transcript, p. 15).

274 Danielle O'Brien interview (Jan. 23, 2003).

275 FAA report, Summary of Air Traffic Hijack Events: September 11, 2001, AAT-20, 9/17/01.

276 FAA recording, ATCSCC , NTMO Position #26, Line 4530, Sept. 11, 2001. (FAA Transcript, p. 15).

277 John White interview (May 7, 2004); Ellen King interview (Apr. 5, 2004); Linda Schuessler interview (Apr. 6, 2004); Benedict Sliney interview (May 21, 2004); FAA memo, "Full Transcription; Air Traffic Control System Command Center, National Traffic Management Officer, East Position; September 11, 2001," Oct. 21, 2003, pp. 14, 27. By no later than 9:25, there were serious concerns within the FAA over the safety of other aircraft. A manager from Command Center specifically asked FAA Headquarters if they wanted to order a "nationwide ground stop."277 While executives at FAA headquarters discussed the issuance of a national ground stop, at 9:25, Command Center exercised initiative and ordered all aircraft in the United States not to depart from any airports until further notice.277 Command Center's National Operations Manager, Ben Sliney, told the Commission that he gave this order based on his belief the attacks would continue, concern that the FAA could not locate Flight 77 and reports that other commercial aircraft may have been hijacked. Sliney said he believed he possessed the authority to issue this order and ordered the ground stop in an attempt to mitigate any potential further damage. See Benedict Sliney interview (May 21, 2004).

278 NTSB report, "Flight Path Study—United Flight 77," Feb. 19, 2002; FAA report, "Report of Aircraft Accident," Nov. 13, 2001; John Hendershot interview (Dec. 22, 2003); FAA report, "Summary of Air Traffic Hijack Events: September 11, 2001," Sept. 17, 2001; Commission analysis of radar data.

279 FAA letterhead memorandum, "Report of Aircraft Accident Washington National (DCA) ATCT," Nov. 13, 2001; John Hendershot interview (Dec. 22, 2003); FAA report, "Summary of Air Traffic Hijack Events: September 11, 2001," Sept. 17, 2001; NTSB, "Flight Path Study—American Airlines Flight 77;" and staff analysis of radar data.

280 NTSB report, "Flight Path Study—American Airlines Flight 77;" and staff analysis of radar data.

281 NEADS audio file, Identification Technician position , Channel 5, between 9:32:10 and 9:33:58.

282 Noteworthy for its omission in this account is the claimed 9:24 A.M. FAA notification to the military that Flight 77 was hijacked. In the official NORAD timeline of 9/11 (released September 18, 2001), and as presented to the Commission in May 2003, NORAD claimed to have received notification that Flight 77 was a hijacked aircraft at 9:24 A.M. NORAD officials also indicated that the fighters at Langley Air Force Base were immediately scrambled to meet the threat to Washington posed by Flight 77. Retired General Larry Arnold (CONR Commander on 9/11) amplified, and confused, the issue in testimony before the Commission, stating: "9:24 was the first time that we had been advised of American 77 as a possible hijacked airplane. Our focus – you have got to remember that there's a lot of other things going on simultaneously here -- was on United 93, which was being pointed out to us very aggressively I might say by the FAA. ... We were advised [American 77] was possibly hijacked. And we had launched almost simultaneously with that, we launched the aircraft out of Langley to put them over top of Washington, DC, not in response to American Airlines 77, but really to put them in position in case United 93 were to head that way." Based on its review of the tapes, transcripts and other records obtained under subpoena, as corroborated by witness interviews at NEADS, the Commission can state unequivocally that the 9:24 A.M. notification time was not accurate. The 9:24 notification time was inaccurately derived from a handwritten log maintained by the staff working for the Mission Crew Commander (the operational commander on watch) at NEADS. Called the "MCC/T Log," it was the principal log of events kept at NEADS on 9/11.

At 9:24 A.M., the log records: "American Airlines #N334AA hijacked."²⁸² This tail number refers not to Flight 77 but to Flight 11, the first hijacked aircraft. The subpoenaed tapes confirm that this time corresponds to the receipt of the tail number information on Flight 11 and to reports that Flight 11 was still airborne and headed towards Washington DC.²⁸²

²⁸³ AAL report, "Systems Operation Command Center (SOCC) Chronology for September 11, 2001."

²⁸⁴ FAA audio file, Washington Tower, Tyson/Fluky Position, 9:36 A.M.; FAA letterhead memorandum, "Partial Transcript; Aircraft Accident; AAL 77; Washington, DC; September 11, 2001," Sept. 20, 2001.

²⁸⁵ NEADS audio file, Identification Technician position, Ch. 7, at 9:35:50. The Commission staff was told by AAL's operations center leadership, during interviews, that the management did not request that dispatchers send warnings to the cockpits of its flights in the air on 9/11. The airline cited requirements of the Air Carrier Standard Security Program that information about hijacked flights be restricted to those with operational need to know. AAL reported that the management did, however, instruct dispatchers to contact aircraft with instructions to divert in order to implement the shut down of the airspace. On August 9, 2004 American Airlines sent the Commission a letter indicating that several dispatchers, improvising and acting on their own accord, sent messages to certain aircraft including one sent at 9:22 to the crew of an American flight requesting they "maintain extreme vigilance...USA today reporting acft being flown into the World Trade Center. Unconfirmed AA acft." A message sent to another flight by a different dispatcher at 9:36 a.m. was a more explicit hijack warning, "To all Captains and crew. Security must be at top of the list...AAL aircraft have been [been] hijacked this morning and may have been forced down...2 acft have been flown into the World Trade center—Please all of you be on hi alert—keep us posted on your situation." See AAL letter to Commission, August 9, 2004.

²⁸⁶ NEADS audio file, Mission Crew Commander "Op" position, at 9:36:34; Kevin J. Nasypyany interview (January 22-23, 2004).

²⁸⁷ NEADS audio file, Mission Crew Commander "Op" position, at 9:39:00, and 9:39:37; Kevin J. Nasypyany interview (January 22-23, 2004).

A combination of three factors explains why the Langley fighters initially traveled so far to the east, when their initial scramble order directed them on a heading to the north. First, the Langley scramble order did not convey complete instructions. It instructed the fighters to "Scramble immediately time 1324... Scramble on a heading of 010 flight level 290." Though the order did include a direction to fly – "010" and a flight altitude – 29,000 feet – it did not include a distance to the target, nor the target's location, two key components that are normally included in a scramble order. Indeed, NEADS did not know the location of the mistakenly reported southbound American 11 – at the time, there was no discernable target. Second, a "generic" flight plan assigned to the Langley fighters incorrectly led them to believe that they were being ordered to fly due east (090) for 60 miles. In order to launch aircraft, the Langley AFB Tower was required to file an automated flight plan specifically designating the direction and distance of intended flight. Prior to 9/11, the standard – or generic – flight plan for aircraft departing Langley AFB to the east was "090 for 60" – meaning head 90 degrees (due east) for 60 miles. The generic "090 for 60" flight plan was utilized to expeditiously get aircraft airborne and out of the base's airspace. Langley Tower personnel assumed that once fighters got airborne they would be vectored to the target of interest by either NEADS or the FAA. Third, both the lead Langley pilot and the FAA's Norfolk TRACON facility – which was briefly controlling the aircraft once it departed the Langley AFB airspace – assumed the flight plan instruction to go "090 for 60" was newer guidance that superceded the original scramble order instructions. In fact, shortly after the fighters got airborne, the lead Langley pilot was asked by Norfolk TRACON in what direction he wanted to head. After brief discussion between the lead pilot (identified as "Quit 25") and Norfolk TRACON, it was mutually decided that the fighters would follow the flight plan guidance. Put simply, the Langley pilots received flight direction guidance from both the scramble order and the Langley AFB departure flight plan, and continued on the latter heading for several minutes until a direction and geographic destination was provided.

²⁸⁸ NTSB report, "Flight Path Study—American Airlines Flight 77," Feb. 19, 2002.

²⁸⁹ Federal Aviation Administration, Criminal Acts Against Civil Aviation 2001, p. 41.

²⁹⁰ FAA audio file, Washington Tower, Tyson/Fluky Position, 9:38:52 A.M.; FAA letterhead memorandum, "Partial Transcript; Aircraft Accident; AAL 77; Washington, DC; September 11, 2001," Sept. 20, 2001, p. 7.

²⁹¹ Larry Wansley interview (Jan. 8, 2004).

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292 AAL report, "Systems Operation Command Center (SOCC) Chronology for September 11, 2001."

293 FAA recording, NTMO East Position #26, Line 4530, Sept. 11, 2001. (FAA Transcript, p. 17).

294 Craig Marquis and others interview (Nov. 19, 2003); UAL response to Commission questions for the record, July 13, 2004.

295 Craig Marquis interview (Nov. 19, 2003).

296 UAL report, Flight 93 EWR Full Bag loading status, Sept. 11, 2001; and UAL report, Flight 93 11 Sep EWR ACI Passenger History, Sept. 11, 2001. Jarrah arrived at the Newark Airport parking lot and parked his rental car. See FBI report, *The Final 24 Hours*, December 8, 2003.

297 TSA report, "Selectee Status of September 11th Hijackers," (undated).

298 The checkpoint featured three walk-through metal detectors, two X-ray machines, and explosive trace detection equipment. On 9/11, after the attacks, the FAA's New York Civil Aviation Security Field Office (CASFO) conducted an investigation of the checkpoint used to screen passengers for Flight 93. The investigation found that all equipment was operating in compliance with FAA regulations. Each of the screeners on duty was interviewed. The report stated: "There were no significant findings disclosed from the interviews conducted." FAA report, New York Civil Aviation Security Field Office, "United Air Lines Flight 93 September 11, 2001," undated.

299 FBI report, "The Final 24 Hours," Dec. 8, 2003; and UAL record, Flight 93 EWR ACI passenger history, Sept. 11, 2001.

300 In the six months prior to 9/11, Flight 95 had operated six times a week, Monday through Saturday, from 6/11/01 through 7/7/01, then five times a week, Monday through Friday, from 7/9/01 through 8/31/01. Daily service had started only with the week of 9/3/01. UAL report, "Flight 93 BOS-SFO Load Factors" undated.

301 UAL response to Commission questions for the record, April 5, 2004.

302 UAL response to Commission questions for the record, April 5, 2004.

303 UAL response to Commission questions for the record, April 5, 2004

304 Except for five flights that were canceled, on 6/11/01, 6/19/01, 6/25/01, 7/3/01, and 8/22/01.

305 Except for Sundays, on which there was but a single flight in the six-month period, with a load of 42.19 percent. UAL records, "Flight 93 BOS-SFO Load Factors," undated.

306 FBI report, response to Commission briefing request no. 6, undated (topic 8).

307 UAL record, "Weight and Balance Information—Flight number 175, Sept. 11, 2001;" See also, UAL report, "Information Concerning Boeing Key and Who Sat in Jump Seats on the Hijacked Flights." [SSI]

308 UAL aircraft briefing (Nov. 20, 2003).

309 UAL response to Commission questions for the record, April 5, 2004; Ed Ballinger interview (Apr. 14, 2004).

310 UAL response to Commission questions for the record, Jan. 23, 2004.

311 UAL response to Commission questions for the record, April 5, 2004.

312 NTSB report, "Flight Path Study—United Flight 93," Feb. 19, 2002.

313 Bob Jordan briefing (Nov. 20, 2003).

314 UAL response to Commission questions for the record, April 5, 2004.

315 UAL record, Flight 93 ACARS message, Sept. 11, 2001; Ed Ballinger interview (Apr. 14, 2004).

316 UAL record, Flight 93 ACARS message, Sept. 11, 2001; Ed Ballinger interview (Apr. 14, 2004).

317 UAL record, Flight 93 ACARS message, Sept. 11, 2001; Ed Ballinger interview (April 14, 2004).

318 UAL record, communication to dispatchers on Sept. 11, 2001.

319 UAL record, Flight 93 ACARS message, Sept. 11, 2001.

320 UAL record, Flight 93 ACARS message, Sept. 11, 2001; Ed Ballinger interview (Apr. 14, 2004).

321 FAA memo, "Full Transcript; Aircraft Accident; N591UA (UAL93) Somerset, PA; September 11, 2001," position E 155, Sept. 13, 2001, p. 6 (cleared to 10,000 feet, not to exceed 250 knots); p. 7 (resume normal speed); FAA memo, "Full Transcript; Aircraft Accident; N591UA (UAL93) Somerset, PA; September 11, 2001," position E 155, B43, Sept. 13, 2001, p. 1 (heading 330; left turn); p. 2 (cleared to fourteen thousand feet; then to seventeen thousand feet); FAA memo, "Full Transcript; Aircraft Accident; N591UA (UAL93) Somerset, PA; September 11, 2001," position R39, Sept. 13, 2001, p. 6 (cleared to twenty-eight thousand feet); 9 (cleared "direct dimmo"); FAA memo, "Full Transcript; Aircraft Accident; N591UA (UAL93) Somerset, PA; September 11, 2001," position R73, Sept. 27, 2001, p. 4 (climbing to 28,000 feet); p. 7 (cleared to thirty-five thousand feet); p. 13 (United reports light chop at 9:22:39, and is passed to Cleveland Center).

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322 FAA memo, "Full Transcript; Aircraft Accident; N591UA (UAL93) Somerset, PA; September 11, 2001," position FKL-R, Sept. 17, 2001, p. 1; LOR-R, 5/10/02, Tr. at 8.

323 FAA memo, "Full Transcript; Aircraft Accident; N591UA (UAL93) Somerset, PA; September 11, 2001," Lorain Radar position, May 10 2002, p. 1-8.

324 FAA memo, "Full Transcript; Aircraft Accident; N591UA (UAL93) Somerset, PA; September 11, 2001," Lorain Radar position, May 10 2002, p. 8 (acknowledgment at 9:25:09).

325 FAA memo, "Full transcription; Air Traffic Control System Command Center, National Traffic Management Officer, East position; September 11, 2001," Line 4530, Line 4530, p. 13.

326 FAA memo, "Full Transcript; Aircraft Accident; N591UA (UAL93) Somerset, PA; September 11, 2001," Lorain Radar position, May 10 2002. Again, on September 11, 2001, passengers aboard United Airlines flights could monitor communications between FAA air traffic controllers and the pilots by selecting channel 9 on their headsets. It is possible that the hijackers on board Flight 93 could have heard the conversations between the Cleveland controller and the other aircraft in which the serious situation in New York City was mentioned.

327 UAL record, Ed Ballinger's ACARS log, Sept. 11, 2001; Ed Ballinger interview (April 14, 2004).

328 FAA recording, Cleveland ATC Center certified transcript, 9:27:25, Sept. 11, 2001.

329 The United 93 timeline in FAA report, 'Summary of Air Traffic Hijack Events September 11, 2001,' Sept. 17, 2001, states that at 9:28:54 a 'second radio transmission, mostly unintelligible, again with sounds of possible screaming or a struggle and a statement, 'get out of here, get out of here' from an unknown origin was heard over the ZOB [Cleveland Center] radio.

330 FAA memo, "Full Transcript; Aircraft Accident; N591UA (UAL93) Somerset, PA; September 11, 2001," Lorain Radar position, May 10 2002, p. 10; FAA report, "FAA Summary of Air Traffic Hijack Events September 11, 2001," Sept. 17, 2001. FAA memo, "Full Transcript; Aircraft Accident; N591UA (UAL93) Somerset, PA; September 11, 2001," Lorain Radar position, May 10, 2002, p. 10.

331 On FDR, see NTSB report, "Specialist's factual Report of Investigation—Digital Flight Data Recorder for United Airlines Flight 93, Feb. 15, 2002; on CVR, see FBI report, "CVR from UA Flight #93," Dec. 4, 2003; FAA report, "Summary of Air Traffic Hijack Events; September 11, 2001," Sept. 17, 2001; NTSB report, Air Traffic Control Recording—United Airlines Flight 93, Dec. 21, 2001.

332 FAA memo, "Full Transcript; Aircraft Accident; N591UA (UAL93) Somerset, PA; September 11, 2001," Lorain Radar position, May 10 2002, p. 10; FAA report, "FAA Summary of Air Traffic Hijack Events September 11, 2001," Sept. 17, 2001. FAA memo, "Full Transcript; Aircraft Accident; N591UA (UAL93) Somerset, PA; September 11, 2001," Lorain Radar position, May 10, 2002, p. 10.

333 UAL response to Commission questions for the record, July 13, 2004.

334 ZOB-ARTCC-287, LOR-R, 5/10/02, Tr. at 13. At 9:31:21, ExecuJet 56 also called in, reporting that "we're just answering your call. We did hear that, uh, yelling too." The FAA responded, at 9:31:51: "Okay, thanks. We're just trying to figure out what's going on."

335 UAL record, Flight 93 ACARS message, Sept. 11, 2001; Ed Ballinger interview (Apr. 14, 2004)

336 In accordance with FAA regulations, United 93 had a cockpit voice recorder that recorded in 30 minute loops via microphones in the pilots' headsets, as well as in the overhead panel of the flight deck. This is the only cockpit voice recorder from the four hijacked airplanes to survive the impact and ensuing fire. It recorded the last 31 minutes of the flight. The CVRs and flight data recorders (FDRs) from American 11 and United 175 were not found, and the CVR from American Flight 77 was badly burned and not recoverable. The Flight 93 recording started at 9:32 A.M. through the end of the flight. See FBI report, "Transcript of the Flight Voice Recorder for United Flight 93," Dec. 4, 2003; See also 14 §§ CFR 25.1457, 91.609, 91.1045, and 121.359. Evidence derived from audio readout of CVR from Flight 93.

337 Like Atta on Flight 11, Jarrah apparently did not know how to operate the communication radios; thus his attempts to communicate with the passengers were broadcast on the ATC channel. FBI report, "CVR from UA Flight #93," Dec. 4, 2003.

338 UAL record, Flight 93 ACARS message, Sept. 11, 2001; Ed Ballinger interview (Apr. 14, 2004). United reported that Ed Ballinger in handling his various duties, with the assistance of a fellow controller, sent out this and other "high security" alerts as a means of responding to various flights that had either asked for additional information or acknowledged receipt of his original "Beware cockpit intrusion" message. See UAL response to Commission questions for the record, July 16, 2004.

339 ZOB-ARTCC-287, LOR-R, 5/10/02, Tr. at 19. [REDACTED]

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340 FAA memo, "Full transcription; Air Traffic Control System Command Center, National Traffic Management Officer, East position; September 11, 2001," October 31, 2003, pp. 10, 13; FAA audio file, Herndon Command Center, New York Center position, line 5154.

341 GTE cell phone records indicate that an air phone call was made from Flight 93 to United's maintenance facility in San Francisco at 9:32 A.M. lasting 95 seconds. Another call of longer duration was indicated at 9:36. The SAMC personnel interviewed by the airline, the FBI, and the Commission report receiving only a single phone call from Flight 93, most likely the later one. According to United, the first call may have never been received, because it was in a queue among other calls being received by the facility. See FBI record, "United Air Lines Flight 93 Telephone Calls."

342 Rich B. interview (Nov. 21, 2003); Andrew L. interview (Nov. 21, 2003); Notes of Rich B.; notes of Rich B., Sept. 11, 2001; notes of Andrew L., Sept. 11, 2001.

343 Details of information on the hijacking, shared during the communications on which the Commission based its analysis, are derived from tape recordings of several of the calls, as well as notes and official accounts by those receiving the communications.

344 FBI record, GTE phone records

345 NTSB report, "Flight Path Study—United Flight 93," Feb. 19, 2002.

346 UAL report, "Timeline for Dispatch/SMFDO Activities—Terrorist Crisis, September 11, 2001."

347 UAL response to Commission questions for the record, July 13, 2004.

348 UAL record, Flight 93 ACARS message, Sept. 11, 2001; Ed Ballinger interview (Apr. 14, 2004).

349 FBI report of investigation, interview of recipients of call from Mark Bingham, Sept. 13, 2001 [LES]

350 FBI report of investigation, interviews with recipients of calls from passengers Beamer, Bingham, Bradshaw, Glick, Lyles [LES]

351 14 CFR. §121.547

352 For jump seat information, see UAL records, Weight and Balance Information for Flight 93 and Flight 175, Sept. 11, 2001; AAL records, Dispatch Environmental Control/Weekly Flight Summaries for Flight 11 and Flight 77, Sept. 11, 2001.

353 FBI report of investigation, interview with Robert C., Sept. 11, 2001.

354 United Air Lines manifest records for Flight 93 show that passengers Thomas Burnett, Mark Bingham, Joseph DeLuca, Edward Felt, Linda Gronlund, and Mark Rothenberg were the six passengers holding first-class cabin seats, in addition to all four hijackers. Only Rothenberg is not known to have communicated with the ground during the flight.

355 UAL record, personnel records of pilot and first officer.

356 FBI report of investigation, interview of recipient of calls from Thomas Burnett, Sept. 11, 2001; Witness briefing (Apr. 26, 2004).

357 FBI report of investigation, interview of recipients of call from Jeremy Glick, Sept. 12, 2001; Lyzbeth Glick briefing (Apr. 22, 2004).

358 FBI report, "CVR from UA Flight #93," Dec. 4, 2003.

359 UAL dispatch sent several ACARS messages to the cockpit of Flight 93 after the cockpit had been taken over by the hijackers. UAL record, Ed Ballinger's ACARS log, Sept. 11, 2001.

360 FBI report of investigation, interview of recipients of call from Lauren Grandcolas, Sept. 11, 2001.

361 UAL response to Commission questions for the record, July 13, 2004.

362 UAL report, Flight 93 ACARS message, Sept. 11, 2001; Ed Ballinger interview (April 14, 2004).

363 NTSB report, "Flight Path Study—United Flight 93," Feb. 19, 2002.

364 FAA memo, "Full Transcript; Aircraft Accident; N591UA (UAL93) Somerset, PA; September 11, 2001," Lorain Radar position, May 10, 2002, p. 26-32.

365 Command Center tape recording, NTMO East Position # 26, Line 4530, pages 16-17 of FAA transcript.

366 FBI report of investigation, recipient of communication from Joseph DeLuca, Sept. 13, 2001.

367 Rich "Doc" Miles interview (Nov. 21, 2003); UAL report, "Timeline for Dispatch/SMFDO Activities—Terrorist Crisis, September 11, 2001."

368 FBI report of investigation, recipient of communication from Linda Gronlund, Sept. 11, 2001. FBI transcript, phone call of Linda Gronlund, Sept. 11, 2001.

369 Command Center tape recording, NTMO East Position # 26, Line 4530, page 19 of FAA transcript.

370 FBI report of investigation, recipient of communications from CeeCee Lyles, Sept. 15, 2001.

371 FBI report of investigation, recipient of call from Marion Britton, Sept. 14, 2001.

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372 Command Center, NTMO East Position # 26, Line 4530, page 21 of FAA transcript.

373 UAL report, Flight 93 ACARS message, Sept. 11, 2001; UAL report, Timeline for Dispatch/SMFDO Activities—Terrorist Crisis, September 11, 2001.

374 FAA memo, "Full transcription; Air Traffic Control System Command Center, National Traffic Management Officer, East position; September 11, 2001," Line 4530, p. 23. Neither Monte Belger nor the deputy director for air traffic services could recall this discussion with their interviews with us. Monte Belger interview (April 20, 2004); Peter Challon interview (March 26, 2004). Subsequently, Belger told us that he does not believe the conversation occurred. Monte Belger e-mail to the Commission, July 12, 2004. However, tapes from the morning reveal that at 9:53 a.m., a staff person from headquarters told the command center "Peter's talking to Monte now about scrambling." FAA memo, "Full Transcription: Air Traffic Control System Command Center, National Traffic Management Officer, East Position; September 11, 2001," October 21, 2003, p. 23.

375 FBI report of investigation, recipient of call from Honor Wainio, Sept. 11, 2001.

376 NTSB report, Flight 93 flight data recorder.

377 FBI report of investigation, recipient of call from Todd Beamer, Sept. 11, 2001; Lisa Jefferson interview (May 11, 2004).

378 FAA memo, "Full transcription; Air Traffic Control System Command Center, National Traffic Management Officer, East position; September 11, 2001," Line 4530, p. 24.

379 FBI report of investigation, recipient of call from Sandy Bradshaw, Sept. 11, 2001; Philip B. interview (June 15, 2004).

380 FBI report, "CVR from UA Flight #93," Dec. 4, 2003.

381 FBI report of investigation, interview of recipient of call from Edward Felt, Sept. 11, 2001; FBI transcript, call from Edward Felt call, Sept. 11, 2001.

382 Given the timing of this call, we believe that Lyles was referring to the passengers, not the hijackers. See FBI report, interview of recipient from call from CeeCee Lyles, Sept. 15, 2001.

383 Flight 93 FDR and CVR data

384 FAA memo, "Full transcription; Air Traffic Control System Command Center, National Traffic Management Officer, East position; September 11, 2001," Line 4530, p. 26.

385 Ibid.

386 Command Center, NTMO East Position # 26, Line 4530, page 27 of FAA transcript.

387 Ibid.

388 Ibid.

389 The military did not receive notice at 9:16 A.M. that Flight 93 was hijacked, as was reported to the Commission in May 2003 by NORAD. At 9:16 A.M., the NEADS "MCC/T Log" records: "United tail #N612UA/75 SOB/." The tail number in the log belonged to Flight 175, not Flight 93. A corresponding conversation on recorded conversations on the NEADS floor confirms that at 9:16 A.M., NEADS was receiving (from an FAA facility) confirmation of the tail number of Flight 175 (see NEADS audio file, Identification Technician position , Channel 5, at 9:16:19).

390 Commission transcript of 9/11 NEADS recording DRM1, DAT2, Channel 4 ID op." Sept. 11, 2001.

391 NEADS audio file, Mission Crew Commander "Op" position, at 14:10:36. The timing of the Mission Crew Commander's instruction on ROE also belies various NORAD officials' public recounting of their awareness of, and response to Flight 93. "Air War Over America," for instance, the 1st Air Force's official history of the response to the 9/11 attacks, offers the following accounts by two of the key NORAD participants: (Colonel Robert Marr, NEADS Commander): "With all available alert fighters in the air, Marr and his crew were still faced with United Flight 93. The plane was headed west, so controllers began looking for any other fighter jets that might be nearby. 'We don't have fighters that way and we think he's headed toward Detroit or Chicago,' Marr says. 'I'm thinking Chicago is the target and know that Selfridge Air National Guard Base (Mich.) has F-16s in the air. We contacted them so they could head 93 off at the pass. The idea is to get in there, close in on him and convince him to turn. ... As United Airlines Flight 93 was going out, we received the clearance to kill if need be. In fact, General Arnold's words almost verbatim were: 'We will take lives in the air to save lives on the ground.'" (General Larry Arnold, CONR Commander): "...we watched the 93 track as it meandered around the Ohio-Pennsylvania area and started to turn south toward DC. By now the Pentagon has been hit and we have aircraft on orbit They are now orbiting over Washington, DC, and have been for a while. As United 93 headed toward DC, the desire

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is to move the fighters toward that aircraft." The record demonstrates, however, that no-one at any level in NORAD (or DOD) ever "watched the 93 track" start to turn south towards Washington DC. In fact, the military never saw Flight 93 at all. The Selfridge base was contacted by NEADS not regarding Flight 93, but in response to another commercial aircraft in the area that was reported hijacked (Delta Flight 1989, which ultimately was resolved as not hijacked). Most important, NORAD certainly never "received the clearance to kill if need be" on Flight 93.

392 NEADS audio file, Mission Crew Commander "Op" position, at 14:11:50

393 Command Center, NTMO East Position #26, Line 4530, page 34 of FAA transcript.

394 NORAD record, NEADS MCCT log, September 11, 2001.

395 UAL response to Commission questions for the record, July 13, 2004.

396 UAL report, "Timeline for Operational Messages ATC/UAL—Terrorist Crisis, September 11, 2001."

397 AAL report, "Systems Operation Command Center (SOCC) Chronology for September 11, 2001."

398 NEADS audio file, Mission Crew Commander "Op" position, at 14:32:12; "MCCT Log," September 11, 2001; "CONR Chat Log," September 11, 2001.

399 Kevin J. Nasypyany interview (Jan. 22- 23, 2004); Robert Marr interview (Jan. 23, 2004).

400 Robert Marr interview (Jan. 23, 2004).

401 Kevin Nasypyany interview (Jan. 22-23, 2004); James Fox interview (Oct. 29, 2003).

⁴⁰² Both Atta and Mihdhar established frequent flier accounts with American in late August, possibly in an effort to appear like normal travelers. In both cases the only reservations booked on the account were for travel on 9/11. See AAL response to Commission questions for the record, April 15, 2004.

403 Flight standards rules at that time required the door facilitate access in and out of the cockpit in the event of an emergency. See Shirley Miller interview (Mar. 30, 2004).

404 Don Dillman briefing (Nov. 18, 2003); and Bob Jordan briefing (Nov. 20, 2003)

405 FAA report, Air Carrier Standard Security Program, Sec. XIII.J, May 20, 2001.

406 AAL response to Commission questions for the record, Mar. 15, 2004; AAL record, American Airlines record, Dispatch Environmental Control/Weekly Flight Summary for Flight 11, Sept. 11, 2001; AAL record, American Airlines record, Dispatch Environmental Control/Weekly Flight Summary for Flight 77, Sept. 11, 2001. UAL record, "United Air Lines Weight and Balance Information: Flight 93-2001-09-11; and Flight 175:2001-09-11."

407 The hijackers began their takeover about 15 minutes into Flight 11, about 28 minutes Flight 175, about 31 minutes into Flight 77, and about 47 minutes into Flight 93.

408 According to financial transaction data, at least seven knives were purchased by the 9/11 hijackers including two Victorinox Swiss Army knives, three Leatherman multi-tool knives, two pocket knives, and one Stanley two-piece snap knife set. The FBI collected 14 pieces of evidence of knives or portions of knives, including a box cutter, at the Flight 93 crash. None of the blades or knife housings recovered indicated a blade length longer than 3.5 inches. FBI report, "Summary of Pentbom Investigation," Jan. 31, 2003.

409 FAA Flight Standards Service briefing, Jan. 13, 2004; FBI report, "Summary of Pentbom Investigation," Jan. 31, 2003. Atta received flight training at facilities in Florida and Georgia; Shehhi received flight training in Florida and Georgia; Hanjour received flight training at facilities in Arizona, New Jersey and Maryland; and Jarrah received flight training at facilities in Florida and Pennsylvania. See FBI report, suspected suicide pilot training timeline, undated.

410 David Tew briefing

411 FAA Flight Standards Service briefing, Jan. 13, 2004; FBI report, "Summary of Pentbom Investigation," Jan. 31, 2003.

412 FAA Flight Standards Service briefing, Jan. 13, 2004; FBI report, "Summary of Pentbom Investigation," Jan. 31, 2003.

413 FAA Flight Standards Service briefing (Jan. 13, 2004); Ed Soliday interview (Nov. 21, 2003); and David Tew briefing (Jan. 25, 2004).

414 A number of computer-based software programs that provide cockpit simulation available on the open market to the general public. According to experts at the FAA, such computer-based packages, including products that simulate cockpit controls of the Boeing 757 and 767, provided effective training. The terrorists were known to use computers, and there is no reason to believe they did not have the computer

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literacy necessary to take advantage of computer-based training aids. FAA Flight Standards Service briefing (Jan. 13, 2004); Ed Soliday interview (Nov. 21, 2003); and David Tew briefing (Jan. 25, 2004).

⁴¹⁵ FAA Flight Standards Service briefing (Jan. 13, 2004).

⁴¹⁶ FAA Flight Standards Service briefing (Jan. 13, 2004).

⁴¹⁷ FAA Flight Standards Service briefing (Jan. 13, 2004).

⁴¹⁸ FAA Flight Standards Service briefing (Jan. 13, 2004); Ed Soliday interview (Nov. 21, 2003); and David Tew briefing (Jan. 25, 2004).

⁴¹⁹ FBI report, "Summary of Pentbom Investigation," Jan. 31, 2003.

⁴²⁰ FAA Flight Standards Service briefing, Jan. 13, 2004; Ed Soliday interview (Nov. 21, 2003); and David Tew briefing (Jan. 25, 2004).

⁴²¹ Jane Garvey testimony, May 22, 2003.

⁴²² Based on the examination of FAA intelligence case files, daily intelligence summaries, interviews and other sources.

⁴²³ Jane Garvey testimony, Jan. 27, 2004; Claudio Manno testimony, Jan. 27, 2004.

⁴²⁴ FAA presentation, 2001 CD-ROM Terrorism Threat Presentation to Aviation Security Personnel at Airports and Air Carriers, Slide 24. [SSI]

⁴²⁵ [SECRET] FAA memos, Office of Civil Aviation Security Intelligence, "Usama Bin Ladin/World Islamic Front Hijacking Threat," 1998 and 1999.

⁴²⁶ The event in 1991 involving a Southwest Flight was not a case of terrorism: an American citizen who was angry that he was prohibited from smoking informed the flight crew he had a bomb and wanted to be flown to Cuba. He was arrested when the aircraft made its normally scheduled stop in San Diego. Mike Canavan testimony, May 23, 2003.

⁴²⁷ Brian Jenkins, "Aviation Security in the United States," in Wilkinson and Jenkins, eds., *Aviation Terrorism and Security* (Frank Cass, 1999), p. 104.

⁴²⁸ In 1998 UBL was reported to have stated "...All Islamic military have been mobilized to strike a significant U.S. or Israeli strategic target, to bring down their aircraft and hijack them." See: FAA response of 2/04/03 to Congressional Joint Inquiry staff letter dated 11/06/02

⁴²⁹ FAA [REDACTED]

⁴³⁰ The briefing was provided to FAA, air carrier and airport security officials for Newark Airport on March 14, 2001; Washington-Dulles Airport on March 22, 2001; and Logan Airport May 15, 2001. See FAA memo, Scott B. to Ross H., May 17, 2002.

⁴³¹ Testimony of Jane Garvey, U.S. Senate Committee on Commerce, Science and Transportation. Sept. 20, 2001.

⁴³² Jane Garvey testimony, May 22, 2003.

⁴³³ FAA Administrator Garvey testified before the Commission that she was aware that the summer of 2001 was a time of heightened terrorist threat. See Jane Garvey testimony, January 27, 2004.

⁴³⁴ John H. interview (Oct. 8, 2003)

⁴³⁵ [SECRET] [REDACTED] summaries mentioned Usama Bin Ladin or al Qaeda threats overseas. Others indicated threats to U.S. interests, but only in the context of military and diplomatic facilities or of commercial interests overseas. [REDACTED] FAA

reports, Daily Intelligence Summaries, 2001. FAA security analysts did perceive an increasing terrorist threat to U.S. civil aviation at home. Numerous FAA documents, including agency accounts published in the *Federal Register* in July 2001, clearly demonstrated the FAA's understanding that terrorist groups were active in the United States and maintained a historic interest in targeting aviation, including hijacking.

⁴³⁶ [SECRET] FAA Daily Intelligence Summaries, May 1, 2001-Sept. 11, 2001.

⁴³⁷ [SECRET] FAA Daily Intelligence Summaries, July 13, 2001.

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⁴³⁸ At the Commission's May 23, 2003, hearing, Commissioner Gorelick observed that the FAA's invitation to the meeting suggested that "clearly the NSC thought that there would be or could be an aviation security piece to the emergency." The head of FAA civil aviation security, Gen. Mike Canavan, who attended the CSG meetings, agreed with her assessment.

⁴³⁹ Mike Canavan testimony, May 23, 2003.

⁴⁴⁰ Jane Garvey testimony, Jan. 27, 2004. See, for example, Carol H. interview (Oct. 27, 2003), Jane Garvey interview (Oct. 21, 2003); and Cathal Flynn interview (Sept. 9, 2003).

⁴⁴¹ Mike Canavan testimony, May 23, 2003.

⁴⁴² A security directive issued April 24, 2000, did issue an alert regarding Al Qaeda operatives, including Khalid Shaikh Mohammed (whom the FBI identifies as the main planner of the 9/11 attack). [REDACTED]

[REDACTED] (SSI)

⁴⁴³ [SSI] The security directive issued on July 27, 2001, cautioned the aviation community about the use of [REDACTED]

⁴⁴⁴ [REDACTED] security directives were issued in 2001 prior to 9/11. (This number does not include five that followed up on several of the seven to make slight adjustments in their requirements.): SD 95-[REDACTED] (Mar. 22, 2001), requiring [REDACTED] SD 108-98-[REDACTED] (Mar. 22, 2001), requiring that [REDACTED]; SD

108-98-[REDACTED] (July 27, 2001), establishing [REDACTED] SD

108-00-[REDACTED] (July 27, 2001), warning the commercial aviation industry about the use of counterfeit law [REDACTED]

[REDACTED] A similar directive was sent to airports also on July 27, 2001—EA 107-00-1D); SD 108-00-03B (July 27, 2001), warning airlines to [REDACTED], SD 108-108-[REDACTED] (Aug. 28), issuing [REDACTED]

[REDACTED], SD 108-01-[REDACTED] (Sept. 6), requiring extra security measures for flights [REDACTED]. Of the 16 security advisories known as "information circulars" sent by the FAA to the commercial aviation industry, 12 focused on security issues overseas, particularly the Middle East; two provided information on the threats of the Algerian-born terrorist Ahmed Ressam against Los Angeles Airport during the so-called millennium crisis; one discussed the threat to civil aviation of ground-to-air missiles (MANPADS); one alerted airports and air carriers to the tactic of disguising weapons [REDACTED]

[REDACTED] and one discussed the possible terrorist threat to Americans posed by extremists but had expired on August 22, 2001. See FAA memos, Information circulars, 2001. [(SSI) Each of the 27 special security briefings that FAA provided to air carriers between May 1, 2001, and September 11, 2001, dealt with threats to civil aviation overseas, primarily in the Middle East. One of the briefings in May addressed hijacking threats overseas; another in August addressed the threat to commercial aviation worldwide, including potential [REDACTED] None of these briefings addressed the use of aircraft as weapons.]

[(SSI) Seven security directives were issued in 2001 prior to 9/11: SD 95-[REDACTED] (March 22) requiring [REDACTED] SD 108-98-[REDACTED] (March) requiring that [REDACTED]

[REDACTED] SD 108-98-[REDACTED] (July 27th) establishing explosives [REDACTED]; SD 108-00-[REDACTED] (July 27th) warning the commercial aviation industry about the use of [REDACTED] [REDACTED]; SD 108-00-[REDACTED] (July 27th) warning airlines to [REDACTED] [REDACTED]; SD 108-108-[REDACTED]

(August 28th) issuing [REDACTED] (September 6th) requiring extra security measures for flights [REDACTED]; (SSI) Of the 16 security advisories known as Information Circulars sent by the FAA to the commercial aviation industry, 12 of them focused on security issues overseas, particularly the Middle East, two provided information on Algerian-Born terrorist Ahmed Ressam's threats against Los Angeles Airport during the millennium; one discussed the threat to civil aviation of ground to air missiles (MANPADS); one alerted airports and air carriers to the tactic of disguising weapons [REDACTED]; and one discussed the possible terrorist threat to Americans posed by extremists but had expired on August 22, 2001.

⁴⁴⁵ [SSI] FAA report, Information Circular 2001-4A, July 31, 2001. Another circular issued on August 16 also mentioned hijacking and warned about the potential use of disguised weapons. [SSI] See FAA report, Information Circular, August 16, 2001 (IC 2001-12).

⁴⁴⁶ Monte Belger interview (Nov. 24, 2003); Shirley M. interview (Mar. 30, 2004). We interviewed a number of FAA security officials, including those on the front lines, who were unaware that the United States was on high alert regarding the terrorist threat during the summer of 2001. The security directors for American Airlines and United Air Lines told the Commission that they knew the summer of 2001 was a time of high threat, but neither of the senior operating executives for American and United Air Lines were aware. See Andy Studdert interview (Nov. 20, 2003); Gerard Arpey interview (Jan. 8, 2004). The Commission was contacted by commercial pilots who had been unaware of the heightened threat period and believed strongly that the threat information should have been more broadly shared with them.

⁴⁴⁷ See Andy Studdert interview (Nov. 20, 2003); Gerard Arpey interview (Jan. 8, 2004).

⁴⁴⁸ "The decade of the 1980s was a disastrous one for aviation. The period confirmed the existence of a dangerous trend toward greater violence against air transportation. Overall, 25 planes were sabotaged by explosives, causing 1,207 casualties as compared to 650 deaths caused by 44 explosions in the 1970s and 286 deaths in the 1960s." Alexander T. Wells, *Commercial Aviation Safety*, 3rd ed. (McGraw-Hill, 2001), p. 303.

⁴⁴⁹ On the night of July 17, 1996, TWA Flight 800, which had departed from New York's JFK International Airport bound for Paris, France, crashed into the Atlantic Ocean near East Moriches, N.Y., killing all 230 individuals on board.

⁴⁵⁰ These recommendations included immediate deployment of explosives detection technology to the airports for baggage screening; passenger and bag matching on domestic flights (a measure already applied overseas, which was explicitly linked to the need to determine the presence of explosives in checked baggage; it required each checked bag to be matched to a boarded passenger before being loaded onto an aircraft); additional deployment of canine explosives-sniffing teams.

⁴⁵¹ [SECRET] FAA report, "Civil Aviation Security Threat and Security Assessment Procedures and Matrix in effect on 9/11/01."

⁴⁵² James U. interview (Sept. 17, 2003); Timothy A. interview (Jan. 8, 2004).

⁴⁵³ James U. interview (Sept. 17, 2003).

⁴⁵⁴ Larry W. interview (Jan. 8, 2004).

⁴⁵⁵ Rand-St. Andrews University Chronology of Terrorist Acts.

⁴⁵⁶ FAA report, "Criminal Acts Against Civil Aviation," 2000.

⁴⁵⁷ FAA report, "Civil Aviation Security Reference Handbook," May 1999, pp. D-9, D-11, D-22.

⁴⁵⁸ The July 17, 2001, *Federal Register* stated: "Terrorism can occur anytime and anywhere in the United States. Members of foreign terrorist groups, representatives from state sponsors of terrorism, and radical fundamentalist elements from many nations are present in the United States. The activities of some of these individuals and groups . . . now include recruiting other persons for terrorist activities and training them to use weapons and make bombs." It continued: "Thus an increasing threat to civil aviation from both foreign sources and potential domestic ones exists and needs to be prevented and countered."

⁴⁵⁹ James U. interview (Sept. 17, 2003).

⁴⁶⁰ FAA Information Circular 2000 [REDACTED] issued April 27, 2000. [SSI]

⁴⁶¹ FAA, 2001 CD-ROM *Terrorism Threat Presentation to Aviation Security Personnel at Airports and Air Carriers*, slide 24. [SSI]

⁴⁶² FAA report, "Total Architecture for Aviation Security," June 2001, p. 10. However, the Commission also heard testimony from various FAA and aviation industry leaders, including two former FAA associate administrators of civil aviation security, that the civil aviation security system was designed to stop "crazies" and "criminals" but not necessarily committed terrorists who could always find a way to defeat the system.

⁴⁶³ See Title 49 U.S.C. § 44903(b). The rules FAA imposed on certificated airports and air carriers to achieve security objectives were set forth primarily in 14 C.F.R. §§ 107, 108, 109, 129. The FAA's enforcement tools included imposing civil fines and withholding an air carrier's or airport's federal certificate to operate. Beginning in 1986, the FAA's responsibility "to protect passengers and property" was augmented to include the evaluation of intelligence on threats to the civil aviation system

⁴⁶⁴ The rules FAA imposed on certificated commercial air carriers were required by Title 49 of the U.S. Code and set forth primarily in 14 C.F.R. §§ 108, 129; an FAA-approved Air Carrier Standard Security Program (ACSSP); an industry-generated Checkpoint Operations Guide (COG) that specified the ways and means by which air carriers would meet federal aviation security requirements.

⁴⁶⁵ FAA Report, Administrator's Fact Book, October 2001, p. 16; FAA Report, Civil Aviation Security Handbook, May 1999, pp. 117-118. [SSI]

⁴⁶⁶ See, *Report of the President's Commission on Aviation Security and Terrorism*, Washington, D.C., 1990, p. 40.

⁴⁶⁷ Jane Garvey interview (Oct. 21, 2003); Mike Canavan interview (Nov. 4, 2003).

⁴⁶⁸ To facilitate the flow of data and promote interagency cooperation on civil aviation security issues, the FAA assigned liaison personnel to key intelligence community agencies, including the FBI, CIA, [REDACTED]

[REDACTED] Claudio Manno interview (Oct. 1, 2003).

⁴⁶⁹ FAA intelligence officials stated that the division did not receive a daily stream of raw intelligence from the FBI. Claudio Manno interview (Oct. 1, 2003).

⁴⁷⁰ Section 111(a) of the Aviation Security Improvement Act of 1990 (P.L. 101-604) required "the agencies of the intelligence community [to] . . . ensure that intelligence reports concerning international terrorism are made available . . . to the Department of Transportation and the Federal Aviation Administration." The U.S. intelligence community, including the FBI, CIA, [REDACTED]

[REDACTED] among others, was responsible for collecting and analyzing intelligence data bearing on the security of the United States and for that data to the FAA's Office of Civil Aviation Security Intelligence (ACI). The

kinds of intelligence data that were supposed to flow to the FAA were determined by collection requirements set out in a "statement of intelligence interest" and other arrangements between the FAA and various intelligence community agencies. Claudio Manno testimony, Jan. 27, 2004); Claudio Manno interview (Oct. 1, 2003); Matt K. interview (Feb. 13, 2004).

⁴⁷¹ Pat M. interview (Sept. 24, 2003)

⁴⁷² Among the other products created by the Office of Civil Aviation Security Intelligence were "intelligence notes" and special assessments to provide detailed analysis on specific security issues, as well as "information circulars" that were sent to airports and air carriers to warn them of general security threats and concerns. Additionally, the Office of Secretary of Transportation had a director of security and intelligence to keep the secretary up to date on transportation security issues. To that end, the director was provided copies of intelligence products prepared by the FAA Office of Civil Aviation Intelligence.

The FAA's Intelligence Division produced four main products to help keep policymakers and the industry informed about threats to security so that they could make informed decisions about whether security policies, practices, and procedures were sufficient to counter the perceived threat. The first of these was the Daily Intelligence Summary (DIS). The intelligence data was rolled up each day into a summary and presented to key policymakers, including the FAA associate administrator of civil aviation security, the FAA administrator, and the FAA deputy administrator. The Department of Transportation's director of security and intelligence would also receive the information and use the material to produce a more comprehensive security briefing for the secretary of transportation. The second main product of the Intelligence Division was the information circular. It was designed to alert policymakers and the commercial aviation industry to more general threats and issues bearing on civil aviation security, but in the FAA's view did not necessitate the implementation of extraordinary security procedures. Whereas the security directive was a regulatory mechanism, the information circular was advisory. In addition, FAA intelligence published intelligence notes and assessment reports to expound on security issues such as terrorist methods of operation. These products were mainly intended to help justify and support regulatory and policy decisionmaking.

⁴⁷³ James U. interview (Sept. 17, 2003); Claudio Manno interview (Oct. 1, 2003). If the assistant reviewed something in the DIS that she thought merited the attention of the Deputy Administrator, she would see that he was informed. The Deputy Administrator in turn would determine whether the information needed to be raised with the Administrator. Monte Belger interview (Nov. 24, 2003); Shirley M. interview (Mar. 30, 2004). Several interviewees indicated that the FAA Administrator maintained an open-door policy and was accessible if an intelligence or security matter needed to be raised, although one associate administrator said he rarely addressed security issues with her, going instead to the Deputy Administrator. The Administrator told us that she counted on her highly capable security staff to notify her of any pressing issues. Jane Garvey interview (Oct. 21, 2003); Cathal Flynn interview (Sept. 9, 2003); Monte Belger interview (Nov. 24, 2003); Shirley M. interview (Mar. 30, 2004).

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⁴⁷⁴ In addition, the analyst would determine whether to open an intelligence case file (ICF) to track and assess the particular security threat or issue. Between 1993 and 2001, the FAA had opened [REDACTED] ICFs; key intelligence inputs and taskings were recorded in a daily log sheet to make possible monitoring and supervision.

⁴⁷⁵ Pat M. interview (Sept. 24, 2003); Bruce B. interview (Sept. 29, 2003). All airports certificated by the FAA to operate were required to implement a standard set of minimum security measures which were set forth in the Air Carrier Standard Security Program. Similarly, FAA-certificated airports were required to abide by an Airport Operator Standard Security Program. The FAA was authorized to require that air carriers and airports implement immediate, temporary measures to increase or alter security procedures. It did so by issuing security directives to air carriers (FAR 108) and emergency amendments to airports (FAR 107).

⁴⁷⁶ Claudio Manno interview

⁴⁷⁷ FAA report, Air Carrier Standard Security Program, [REDACTED], May 2001. [SSI]

⁴⁷⁸ Nick G. interview (May 26, 2004); Claudio Manno interview (Oct. 1, 2003); Mike Canavan interview (Nov. 4, 2003); Wells, *Commercial Aviation Safety*, p. 308.

⁴⁷⁹ FAA Security Directive 95- [REDACTED] Aug. 25, 1995. (SSI)

⁴⁸⁰ FAA Security Directive 97- [REDACTED] May 26, 1998 [SSI]; FAA Security Directive 96- [REDACTED] May 27, 1998. [SSI] Ironically, this language accompanied an FAA security directive that, in part, implemented the automated prescreening system (CAPPS I) that lowered the level of screening for carry-on items required of selectees.

The conviction of Ahmed Ressam for a plot to bomb the Los Angeles International Airport around January 1, 2000, was specific proof that terrorists sought to attack civil aviation in the United States.

⁴⁸¹ FAA report, Security Directive 96- [REDACTED] Dec. 1, 1998.

⁴⁸² Department of Transportation rulemaking, "14 CFR Parts 107 and 139 Airport Security; Final Rule," *Federal Register* vol. 66, No. 137 (July 17, 2001).

⁴⁸³ Cathal Flynn interview (Sept. 9, 2003); Claudio Manno interview (Oct. 1, 2003).

⁴⁸⁴ Cathal Flynn testimony, Jan. 27, 2004.

⁴⁸⁵ [REDACTED]

[LES] [REDACTED]

[REDACTED] " See FBI report, "Response to Commission Request 29-3 [Airport vulnerability assessments].

⁴⁸⁶ Norman Mineta testimony, May 23, 2003; Lee L. interview (Oct. 28, 2003).

⁴⁸⁷ However, according to an FBI official, their assessment of the terrorist threat to aviation was based on a matrix provided to them by the FAA. This matrix measured the threat [REDACTED]

[REDACTED] Staff believes that this is another example of a troubling phenomenon observed in other areas of aviation security—that of plausible deniability. While the FAA could point to the FBI terrorist threat assessment as being "low" therefore imposing no obligation to increase security at home; the FBI could point to the assessment as one based on criteria established by the FAA—criteria that required [REDACTED]

⁴⁸⁸ Matt K. interview (Sept. 24, 2003); Cathal Flynn interview (Sept. 9, 2003); James P. interview (Oct. 7, 2003); Claudio Manno interview (Oct. 1, 2003); The issues and

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problems associated with the FBI culture in regard to intelligence versus criminal investigation is addressed extensively by the Commission's Team Five.

⁴⁸⁹ Cathal Flynn interview (Sept. 9, 2003)

⁴⁹⁰ Cathal Flynn testimony (Jan. 27, 2004)

⁴⁹¹ Matt K. interview (Feb. 13, 2004)

⁴⁹² The Phoenix EC was a 2001 FBI memo produced by a Special Agent in Phoenix, Arizona expressing his concern about flight training by individuals from Arab countries. FAA records indicate that no case file was established by the FAA specifically on the issue of pilot training by terrorists. One FAA Intelligence Official indicated that had this information been known to the FAA, perhaps the FAA's Intelligence division would have had the opportunity to focus on pilot training as a security issue in the period leading up to September 11, 2001. See Matt K. interview (Feb. 13, 2004).

⁴⁹³ The FBI agent in charge of the tasking indicates that the liaison was consulted and, in fact, reviewed the tasking memo sent to the field office. See Bev W. interview (Feb. 17, 2004); Jack S. interview (Nov. 3, 2003); The FBI agent in charge of the tasking indicates that the liaison was consulted and, in fact, reviewed the tasking memo sent to the field office.

⁴⁹⁴ Bev W. interview (Feb. 17, 2004)

⁴⁹⁵ Carol H. interview (Oct. 27, 2003). In its recommendations to the Gore Commission, the ATA called for: "the dedication of specific FBI staff resources to the unique issues relating to aviation terrorism which, consistent with current intelligence assessments, require particular attention."⁴⁹⁵ Letter from President and Chief Executive Officer of the Air Transport Association, to General John Michael Loh (Retired) of the Gore Commission, August 23, 1996.

⁴⁹⁶ Agency leadership referred to FAA personnel assigned to Intelligence Community agencies as "liaisons." See reponse of TSA to Congressional Joint Inquiry questions for the record, Feb. 4, 2003.

⁴⁹⁷ [SECRET] See: CIA report: "Robert W's Responses to Commission Questions for the Record, 8 July 2004."

⁴⁹⁸ [SECRET] FAA report, Intelligence Case File, [REDACTED] FAA report, Intelligence Case File, [REDACTED]. See FAA, Daily Intelligence Summaries from May 1, 2001 to September 10, 2001

⁴⁹⁹ [SECRET] FAA report, Information Circular 2000-[REDACTED], April 27, 2000; FAA Intelligence Case File [REDACTED] FAA Intelligence Case File [REDACTED]. In 1998 UBL was reported to have stated "...All Islamic military have been mobilized to strike a significant U.S. or Israeli strategic target, to bring down their aircraft and hijack them." See: FAA response of 2/04/03 to Congressional Joint Inquiry staff letter dated, Nov. 6, 2002. [SSI] The indictment of one of the co-conspirators with Bin Laden in the Africa embassy bombings in 1998 stated that the defendant had "trained in a number of camps in Afghanistan, including a number of camps affiliated with al Qaeda. The [defendant] was trained in explosives, hijacking, kidnapping, assassination and intelligence techniques..." See United States District Court Southern District of New York v. Usam Bin Laden, S(10) 98 Cr. 1023 (LBS)

⁵⁰⁰ [SECRET] FAA report, Intelligence Case File [REDACTED], FAA report, Intelligence Case File [REDACTED]

⁵⁰¹ [SECRET] FAA report, Intelligence Case File [REDACTED]

⁵⁰² [SECRET] FAA Intelligence Case File [REDACTED]

⁵⁰³ [SECRET] FAA report, Intelligence Case File [REDACTED] See FAA reports, Daily Intelligence Summaries, 2001. [Pre 9/11]

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⁵⁰⁴ [SECRET] See FAA report, Intelligence Case File [REDACTED]
⁵⁰⁵ [REDACTED]

⁵⁰⁶ [SECRET] FAA report, Intelligence Case File [REDACTED]; [SECRET] Claudio Manno interview (Oct. 1, 2003).

⁵⁰⁷ [REDACTED]

⁵⁰⁸ [SECRET] FAA report, Intelligence Case File 95009.

⁵⁰⁹ In the case of an Air India hijacking in December 1999 and the Alas Chiricanas Airlines hijacking in July 1994, even though the hijackers were not known to operate the aircraft, they clearly possessed advanced knowledge of aviation. Matt K. interview (Feb. 13, 2004)

⁵¹⁰ [SECRET] FAA report, Intelligence Case File 20010064.

⁵¹¹ Jack S. interview (Nov. 3, 2003); Claudio Manno interview (Oct. 1, 2003). See also FAA report, Intelligence Case File [REDACTED]

⁵¹² [REDACTED]

⁵¹³ Hijacking of an Air France jetliner. The hijackers' destination was Paris. [REDACTED]

⁵¹⁴ [SECRET] FAA report, Intelligence Case File [REDACTED]. See Pat M. interview (Sept. 24, 2003); and Jack S. interview (Nov. 3, 2003); See also FAA report, Intelligence Case File [REDACTED]

⁵¹⁵ [SECRET] FAA report, Intelligence Case Files [REDACTED] and [REDACTED]. Also, in 1974 a man attempted to commandeer a commercial jet at BWI with the intent of slamming the aircraft into the White House, but was shot before he could execute his plan. "Hijacker Targeted President in 1974--www.insightmag.com/news/2002/06/24.

⁵¹⁶ Pat M. interview.

⁵¹⁷ [SECRET] Claudio Manno interview (Oct. 1, 2003).

⁵¹⁸ [SECRET] Jack S. Interviews (Nov. 3, 2003 & June 13, 2004). See also, FAA report, Intelligence Case File 980162.

⁵¹⁹ [SECRET] FAA report, Daily Intelligence Summary, July 12, 2001.

⁵²⁰ [SECRET] FAA report, Daily Intelligence Summary, July 12, 2001. FAA report, Intelligence Case File, 20010141, July 11, 2001.

⁵²¹ [SECRET] FAA report, Intelligence Case File [REDACTED]

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⁵²² [SECRET] FAA report, Intelligence Case File [REDACTED]

⁵²³ [SECRET] FAA Rebuttal, "Joint Staff Statement, Part I, Eleanor Hill, Staff Director, Joint Inquiry Staff, September 18, 2002--Rebuttals" (SSI); and Intelligence Note 99-06, "Usama Bin Ladin/World Islamic Front Hijacking Threat, Issued August 4, 1999.

⁵²⁴ One FAA security official told the Commission that the theme of crashing airplanes into building was something that was "inevitable" because of the high profile of civil aviation. A number of interviewees expressed surprise that in the aftermath of 9/11 the FAA's leadership told Congress that they had never conceived of the use of aircraft as weapons, when in fact the agency had considered the threat, and as one official put it, "logic" dictated that such a possibility was a concern. See Jack S. interview (Nov. 3, 2003).

⁵²⁵ [SECRET] FAA report, "Usama Bin Ladin/World Islamic Front (WIF) Threat to U.S. Civil Aviation," Sept. 15, 1998; FAA report, "Usama Bin Ladin/World Islamic Front Threat to U.S. Civil Aviation," July, 1999; See also FAA report, Intelligence Case File [REDACTED]

⁵²⁶ Matt K. interview, (Feb. 13, 2004)

⁵²⁷ Jack H. interview (Oct. 8, 2003)

⁵²⁸ Federal Aviation Administration, *2001 CD-ROM Terrorism Threat Presentation to Aviation Security Personnel at Airports and Air Carriers*, Slide 24. [SSI]

⁵²⁹ Mike Canavan testimony (May 23, 2004). We note that the final report of the Congressional Joint Inquiry on intelligence regarding 9/11 indicated that the FAA had not considered the use of aircraft as weapons. In response to the report, the FAA's intelligence unit sent a letter to the Joint Inquiry explaining that it had considered the use of aircraft as weapons and providing the facts to substantiate the rebuttal. Commission staff believes that the Intelligence division deserves substantial credit for its efforts to ensure that the public record was accurate regarding what the agency knew. See FAA Rebuttal, "Joint Staff Statement, Part I, Eleanor Hill testimony" (SSI); Security expert Brian Jenkins noted that: "...Security authorities almost invariably failed to foresee the terrorists' adoption of fresh methods of attacking aviation..." Even when potential tactics were perceived, the absence of an actual event or the intelligence regarding a "specific" plot to implement it meant little in terms of alterations to the security baseline.

⁵³⁰ James P. interview (Oct. 7, 2003); Matt K. interview (Feb. 13, 2003); Ed. S. interview (Nov. 21, 2003)

⁵³¹ Rich S. interview (Mar. 1, 2004) (SSI)

⁵³² Claudio Manno interview (Oct. 1, 2003); and Lynne O. interview (Oct. 3, 2003)

⁵³³ Lee L. interview (Oct. 28, 2003); James P. interview (Oct. 7, 2003); and Jane Garvey testimony, Jan. 27, 2004.

⁵³⁴ [SSI] Commission interviewees stated that to be listed in a security directive an individual would have had to pose a [REDACTED] threat to aviation—which meant that an individual, [REDACTED]

[REDACTED] Lee L. interview (Oct. 28, 2003); James P. interview (Oct. 7, 2003); Jane Garvey testimony, Jan. 27, 2004; and Cathal Flynn testimony, Jan. 27, 2004.

⁵³⁵ Cathal Flynn testimony, Jan. 27, 2004

⁵³⁶ Matt K. interview (Feb. 13, 2004).

⁵³⁷ Claudio Manno interview (Oct. 1, 2003). Claudio Manno testimony, Jan. 27, 2004.

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⁵³⁸ Matt K. interview (Feb. 13, 2004).

⁵³⁹ [SSI] FAA reports, SD95—issued April 24, 2000; SD 108-01—issued August 21, 24 & 28, 2001

⁵⁴⁰ Final Report, White House Commission on Aviation Safety and Security, Feb. 12, 1997; One of the members of the Gore Commission told the 9/11 Commission that the intent of this recommendation was to assure maximum use of terrorist watch lists to prohibit known and suspected terrorists from getting on aircraft. The language of the recommendation appears to be somewhat ambiguous in regard to the "intelligence information" it calls on the FBI and CIA to use for the purpose of passenger profiling, if not the terrorists' names themselves. However, we stress that it would make exceedingly little sense to suggest that the FAA use information about known and suspected terrorists to create a profile capable of identifying them by their profile at airports in order to stop them from flying, but fail to use their known names for the same purpose..

⁵⁴¹ James P. interview (Oct. 7, 2003); See also: FAA report, Security Directive SD 97-01 (SSI).

⁵⁴² FAA report, Security Directive SD-964 [SSI]

543 FAA report, Security Directive 96-1 issued on July 25, 1996.

[SSI] FAA report, Security Directive SD-96-05 (A-G) (SSI); Janet R. interview (Feb. 26, 2004); and Rich S. interview (Mar. 1, 2004).

⁵⁴⁴ FAA report, Security Directive SD-96 [REDACTED] (SSI); and FAA report, Security Directive SD 97 [REDACTED] (SSI).

⁵⁴⁵ Janet R. interview (Feb. 26, 2004)

546 Ed S. interview (Nov. 21, 2003)

⁵⁴⁷ *Ex. B. Interview (Nov. 21, 2003)*
FAA report, Air Carrier Standard Security Program, May, 2000. [SSU]

⁵⁴⁸ FAA report, Air Carrier Standard Security Program, May, 2000. [SSI]

⁵⁴⁹ FAA Report, All Carrier Standard S

⁵⁵⁰ FAA Security Directive 97-1, issued October 27, 1997 stated that the directive

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⁵⁵¹ James P. interview (Oct. 7, 2003).

⁵⁵² Carol H. interview (Oct. 27, 2003)
⁵⁵³ [SSI] Mr. R. interview (Feb. 26, 2004). We would note that such a decrease occurred at a time when the terrorist threat to the United States was on the increase, including the bombing of American Embassies in East Africa, Usama Bin Ladin's declaration of war against the United States; the bombing of the U.S.S Cole and the millennium threat posed by Ahmed Ressam [SECRET].

Relevant

⁵⁵⁴ FAA report, Baseline Working Group final report, 1996. FAA interviewees also stated that, as originally conceived, CAPPS was supposed to include extra screening of selectee's person, carry-on belongings and checked bags. See James P. interview (Oct. 7, 2003)

⁵⁵⁵ FAA report, Air Carrier Standard Security Program, [REDACTED] May 2001, pp.1-9.

⁵⁵⁶ Metropolitan Washington Airports Authority, videotape of Main Terminal checkpoints, September 11, 2001 [SSI]

⁵⁵⁷ In the aftermath of the TWA 800 disaster in 1996, Congress, the Gore Commission and the FAA's Aviation Security Advisory Committee were pushing for large scale deployment of expensive explosive detection equipment at the nation's airports. At a cost of \$1,000,000 million per machine, the initiative promised to be an expensive proposition for air carriers and the FAA. By linking the efforts to identify "risky" passengers through CAPPS to the use of Explosive Detection Technology – the system could ration the limited availability of the equipment at the time. It is quite possible that the industry also envisioned it as a means of avoiding the expense of having to apply EDT to all passenger bags when more machines could be made available.

⁵⁵⁸ Passengers would perceive increased screening as an additional "hassle" factor of flying. The Department of Justice perceived the potential for complaints about discrimination by a system that singled out passengers for secondary screening. Finally, Congress did not like to hearing constituent complaints about either passenger inconvenience or charges of discrimination likely to arise from secondary screening.

⁵⁵⁹ Air carriers, which were always concerned about operational efficiency, surely realized that requiring selectees to undergo additional screening of their person or hand searches of carry-on baggage could slow down checkpoint operations and thereby increase the difficulty of staying on schedule.

⁵⁶⁰ Marcus A. interview (Oct. 24, 2003)

⁵⁶¹ While endorsing the "manual and automated profiling systems, such as the one under development by the FAA and Northwest Airlines," the latter of which was the progenitor of the CAPPS program, the Gore Commission adopted a lengthy "augmenting recommendation" with respect to the subject: "The Commission strongly believes the civil liberties that are so fundamentally American should not, and need not, be compromised by a profiling system. The Commission recommends the following safeguards: 1) no profile should contain or be based on material of a constitutionally suspect nature; 2) factors to be considered for elements of the profile should be based on measurable, verifiable data indicating that the factors chosen are reasonable predictors of risk; 3) passengers should be informed of airline security procedures and of their right to avoid any search of their person or luggage by electing not to board the aircraft; 4) searches arising from the use of an automated profiling system should be no more intrusive than search procedures that could be applied to all passengers; 5) neither the airlines nor the government should maintain permanent databases on selectees; 6) periodic independent reviews of profiling procedures should be made; 7) the Commission reiterates that profiling should last only until Explosive Detection Systems are reliable and fully deployed; and 8) the Commission urges that these elements be embodied in FAA standards that must be strictly observed." See *Final Report of the White Commission on Aviation Safety and Security*, Washington, DC, 1997.

⁵⁶² Marcus A. interview (Oct. 24, 2003)

⁵⁶³ See FAA letter from Principal Security Inspector dated January 11, 1998. UAL response to Commission questions for the record, April 16, 2004.

⁵⁶⁴ Ed S. interview (Nov. 21, 2003); Former FAA Administrator Garvey told the Commission that concerns were raised about security profiling at airports by the Arab American community that feared it might be the target of such security measures. She recalled receiving a similar complaint on behalf of the Arab-American community from a member of Congress. In response to the concerns, she and the Associate Administrator of Civil Aviation Security Chathal Flynn traveled to Detroit in 1998 to meet with members of the Arab American community who expressed deep concerns about passenger prescreening and the potential for discrimination. See Jane Garvey interview (Oct. 21, 2003); An article about the visit that appeared in the Arab American News on September 18, 1998 contained an account of an Arab American who told the member of Congress that he felt discriminated against and humiliated when he was told to open his luggage for hand-searching in front of other passengers at the local airport. It is worth noting that the issue of CAPPS was highly contentious at the time the developing program was considered by the Gore Commission, and it has continued to be so to the present day. Gore Commission member and terrorism expert Brian Jenkins highlighted the key concerns in a 1999 article: "Americans would prefer their security to be democratic and passive; that is, equally applied to everyone, and reactive only to behavior indicating criminal intent – such as attempting to smuggle a gun on board – rather than attempting to identify in advance the most likely smuggler. Criteria based on ethnic identity, national origin, gender, and religion are all out of bounds to civil libertarians. Nor should profiling provide airlines with access to personal information about travelers, including their criminal record if they have one. Arab-Americans, who have been subject to suspicion and in some cases mistreatment following terrorist incidents that were correctly or incorrectly blamed on Middle Eastern groups, have expressed particular concern." See Brian Jenkins, "Aviation Security in the United States," in Wilkinson and Jenkins, eds., *Aviation Terrorism and Security* (London and Portland, OR: Frank Cass Publishers, 1999), p. 106.

⁵⁶⁵ Al H. briefing (June 8, 2004)

⁵⁶⁶ Information about the weapons used by the 9/11 hijackers is derived from reports provided by passengers who contacted the ground from the hijacked aircraft, from evidence found at the crime scenes, and from the hijackers' financial records. At least seven knives were purchased by the hijackers, including Victorinox Swiss Army knives, Leatherman multi-tool knives, pocket knives, and a Stanley two-piece snap knife set. The FBI collected evidence of 14 knives or portions of knives, including a boxcutter type implement, at the Flight 93 crash site. None of the blades that were found appeared to be 4 inches in length or longer. However, one of the pieces of evidence which the FBI referred to as a "green plastic handle for utility knife," did not have a blade, so it was not possible to ascertain how long it was. Short-bladed knives were not expressly prohibited by FAA regulations, so it is entirely possible that had they been found on the hijackers as they passed through checkpoint, they would have been returned to them (unless they were determined by the screener to be "menacing.") [LES]

⁵⁶⁷ Federal Aviation Regulation Part 108 and the FAA's Air Carrier Standard Security Program specified the means by which air carriers, or their designees, were to screen passengers and their carry-on belongings. 14 CFR §108.9.

⁵⁶⁸ Cathal Flynn testimony, Jan. 27, 2004.

⁵⁶⁹ The airline retained the responsibility for overseeing the contractor's compliance with FAA regulations. See FAA report, Air Carrier Standard Security Program, May 2001. [SSI] Testimony of Robert W. Baker, Vice Chairman of American Airlines, to Senate Committee on Governmental Affairs Hearing on "Weak Links: How Should the Federal Government Manage Airline Passenger and Baggage Screening?" S. Hearing 107-208, September 25, 2001, pp. 107-108.

⁵⁷⁰ FAA report, Air Carrier Standard Security Program, May 2001. [SSI]

⁵⁷¹ Appendix I of the ACSSP provided FAA's "Deadly or Dangerous Weapons Guidelines" for use in determining what objects should not be allowed to be carried into the cabin of an aircraft. They were to be used by screeners "in making a reasonable determination of what property in the possession of a person should be considered a deadly or dangerous weapon. They are only guidelines, however, and "common

sense should always prevail." Within the list were the following relevant entries: Knives – Including sabers, swords, hunting knives, souvenir knives, martial arts devices, and such other knives with blades 4 inches long or longer and/or knives considered illegal by local law; Disabling or Incapacitating Items – All tear gas, mace, and similar chemicals and gases whether in pistol, canister, or other container, and other disabling devices such as electronic stunning/shocking devices; Other Articles – Such items as ice picks, straight razors, and elongated scissors; though not commonly thought of as a deadly or dangerous weapon, but could be used as a weapon, including toy or "dummy" weapons or grenades. See FAA report, Air Carrier Standard Security Program, Appendix I, May 2001. [SSI]

⁵⁷² The book provided an example citing the [REDACTED]

[REDACTED] See ATA/RAA, *Checkpoint Operations Guide*, Revision 007, September 10, 2001, pp. 5-6 through 5-9 [SSI]

⁵⁷³ The *Checkpoint Operations Guide* (COG) was developed, "in cooperation with the FAA," by the Air Transport Association (ATA) and the Regional Airline Association (RAA) to implement the security checkpoint related provisions of the ACSSP, and was subject to FAA review. *Checkpoint Operations Guide*, Revision 007, September 10, 2001, cover page [SSI] Courtney T. interview (June 3, 2004). Email response to Commission, Courtney T., June 14, 2004; The *Air Transport Association* (ATA) was founded in 1936 and remains the trade association for the major U.S. airlines. It represents their interests before Congress, federal agencies (including the FAA), and state and local governments. The ATA seeks to coordinate industry and government safety programs, to help standardize industry practices and to enhance the efficiency of the air transportation system. Of particular relevance to this report, the ATA took the lead role for the airlines in the FAA rulemaking process, and in developing – with FAA cooperation – the *Checkpoint Operations Guide* (COG) for passenger and carry-on baggage screening and the training materials for the "Common Strategy" for dealing in-flight with hijackings.

⁵⁷⁴ *Checkpoint Operations Guide*, Revision 007, September 10, 2001, pp. 5-6 through 5-9 [SSI]

⁵⁷⁵ Tim A. interview (Jan. 8, 2004)

⁵⁷⁶ One entry in FAA's database on security incidents in 2001 regarding an incident at Logan Airport on 1/31/2001 in which a passenger entered a checkpoint "with a box cutter inside is jacket pocket." The report stated that "The item was discovered during x-ray screening. State police were notified and trooper cleared passenger for travel. Box cutter was placed in the TSA prohibited items bin." See FAA report, Security incident, Logan Airport, January 31, 2001

⁵⁷⁷ One of the checkpoint supervisors working at Boston's Logan International Airport on September 11, 2001, recalled that, at that time, while box-cutters were not permitted to pass through the checkpoint without the removal of the blade, any knife with a blade of less than four inches was permitted to pass through security. FBI report of investigation, interview of screener, (Sept. 30, 2001) [LES]

⁵⁷⁸ May stated, "Under pre-9/11 FAA regulations only "knives with blades four inches long or longer and/or considered illegal under local law" were prohibited. Under a non-regulatory *Checkpoint Operations Guide*, developed by the FAA, the Regional Airline Association and the ATA, with FAA approval interpreting the FAA regulations, box cutting devices were considered a restricted item posing a potential danger. This meant that if such a device was identified, it could be kept off the aircraft. The FAA mandated metal-detection walk-through systems, however, were designed and tested to detect metallic items about the size of a small handgun or larger. The pre-9/11 screening system was not designed to detect or prohibit these types of small items." Testimony of James C. May, Chairman and CEO, Air Transport Association of America, to National Commission on Terrorist Attacks Upon the United States at Hearing on Civil Aviation Security, May 22, 2003

⁵⁷⁹ FAA report, Air Carrier Standard Security Program, Appendix [redacted] May 2000. FAA "Office of Civil Aviation Security National Assessment Manual" second edition, 6/30/1999; Bruce P. interview (Oct. 27, 2003). An FAA form titled "Screening Activities" that certificated airports were required to submit annually contained a field for the listing "weapons detected" at checkpoint screening operations. The field featured two categories, one titled "firearms" and the other titled "explosives and incendiaries." There was no field provided for knives. See Massport report, FAA Form 1650-7. Nevertheless, a U.S. government database which recorded suspicious security incidents at U.S. airports contained nine entries regarding "deadly and dangerous items" for 2001 prior to 9/11. Among them was an entry of an incident on March 15, 2001, at the Kansas City airport which stated "passenger attempted to enter checkpoint with three and one-half inch knife in carry-on baggage. Passenger surrendered the item." Presumably this was an instance in which "common sense rather than a strict interpretation of the Air Carrier Standard Security Program and the Checkpoint Operations Guide of prohibited items. Another entry dated January 31, noted that a box cutter was confiscated from a passenger at Boston Logan and "placed into the prohibited items bin." And still another which occurred in June reported that a "pair of folding scissors" had been taken from a female passenger also in Boston. See TSA report, Security Incidents Reports 1/12001 to 9/11/2001.

⁵⁸⁰ FAA report, "The Threat to U.S. Civil Aviation in the United States" September, 1994. [SSI]

⁵⁸¹ FAA security experts indicated to the Commission that the standard was based on a size of blade that could be considered "menacing" as well as a survey of local laws to determine what localities allowed citizens to carry in a concealed fashion in public. This canvas resulted in the establishment of the four-inch standard. See Lynne O. interview (Oct. 3, 2003); and Lee L. interview (Oct. 28, 2003); In regard to knives with blades shorter than 4 inches long, FAA's former civil aviation security chief testified before the Commission that "the menace conveyed by them is less than the innocent reasons for having them in people's possession." At the same hearing, former FAA Administrator Jane Garvey noted that prior to 9/11 knives were "commonplace" at airports and were used for meals services on aircraft. See Cathal Flynn testimony, Jan. 27, 2004; and Jane Garvey testimony, Jan. 27, 2004; In 1993, the FAA considered placing all knives on the prohibited items list, but the proposal was dropped because officials viewed such a mandate as unenforceable. See Leo B. interview (Sept. 17, 2003).

⁵⁸² The "Air Carriers Checkpoint Operations Guide" in effect on 9/11 stated: "knives with blades under 4 inches, such as Swiss Army Knives, scout knives, pocket utility knives, etc. may be allowed to enter the sterile areas. However knives with blades under 4 inches that could be considered by a reasonable person to be a "menacing" knife and/or may be illegal under local law and should not be allowed to enter the sterile area." See FAA, "Air Carriers Checkpoint Operations Guide," Aug. 1999. See also, FAA report, Air Carrier Standard Security Program, May, 2000. [SSI]; Cathal Flynn interview (Sept. 9, 2003); Lee L. interview (Oct. 28, 2003); Leo B. interview (Sept. 17, 2003).

⁵⁸³ Including among others: GAO reports, Aviation Security: FAA Preboard Passenger Screening Test results (GAO/RCED-87-125FS, Apr. 30, 1987); Aviation Security: Additional Actions Needed to Meet Domestic and International Challenges (GAO/RCED-94-38, January 27, 1994); Aviation Security: Urgent Issues Need to Be Addressed (GAO/T-RCED/NSIAD-96-251, September 11, 1996); Aviation Security: Slow Progress in Addressing Long-Standing Screener Performance Problems (GAO/T-

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RCED-00-125, March 16, 2000); and Aviation Security: Long-standing Problems Impair Airport Screeners' performance (GAO/RCED-00-75, June 28, 2000).

⁵⁸⁴ Including DoT-IG report, Audit Report on Deployment of Explosives Detection Systems, Oct. 5, 1998; Statement on Aviation Security by Alexis Stefani, Deputy Assistant Inspector General for Aviation, before House Subcommittee on Aviation, May 14, 1998; Statement on Aviation Security by Alexi Stefani, Deputy Assistant Inspector General for Aviation, before House Subcommittee on Aviation, March 10, 1999; and Statement on Aviation Security by Alexis Stefani, Deputy Assistant Inspector General for Aviation, before Senate Aviation Subcommittee, April 6, 2000.

⁵⁸⁵ [REDACTED]

See Leo B. interview (Sept. 17, 2003). Many of the government reports cited low pay, insufficient training and high-turnover rates that reached nearly 400% among screeners at the nation's airports as the reason for consistently poor rates of detection. [SSI]

⁵⁸⁶ Dr. John Jay Nestor, FAA Office of Civil Aviation Security Policy and Planning, "Evaluation of Checkpoint Screening Performance 10/1/1998 to 9/20/2000." [SSI]

⁵⁸⁷ Testimony of Gerald L. Dillingham, General Accounting Office, to Senate Aviation Subcommittee of the Committee on Commerce, Science and Transportation at Hearing on Vulnerabilities in Aviation Security System, April 6, 2000. The author of the testimony also served on staff to the 9/11 Commission.

⁵⁸⁸ Numerous interviewees noted that the air carriers awarded screening contracts to the lowest bidder who paid low wages and suffered high levels of employee turnover. They stated that air carriers considered fines imposed on them by the FAA for security violations as a "cost of doing business" that they simply factored into their annual budgets as part of the financial calculus Cathal Flynn interview (Sept. 9, 2003); Rich S. interview (Mar. 1, 2004); Jane Garvey interview (Oct. 21, 2003); Mike M. interview (Sept. 15, 2003).

⁵⁸⁹ Mike M. interview (Sept. 15, 2003)

⁵⁹⁰ *Federal Register*, July 17, 2001, p. 37331.

⁵⁹¹ Janet R. interview (Feb. 26, 2004).

⁵⁹² A veteran FAA Principal Security Inspector to a major airline told the Commission the FAA's standard of performance for checkpoints was "detection." The Principal Security Inspector told the Commission that while "detection" could be tested, measured, and enforced, "deterrence" was more subjective.

⁵⁹³ James C. May testimony, May 22, 2003; One air carrier interviewee observed that the air carriers had done an excellent job of deterring for many years given the absence of a consequential security incident. See Timothy A. interview (Jan. 8, 2004).

⁵⁹⁴ Cathal Flynn interview (Sept. 9, 2003)

⁵⁹⁵ James C. May testimony, May 22, 2003.

⁵⁹⁶ James Underwood interview (Sept. 17, 2003)

⁵⁹⁷ Bogdan Dzakovic testimony, May 23, 2003

⁵⁹⁸ Report of the President's Commission on Aviation Security and Terrorism, May 15, 1990, p. 47.

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⁵⁹⁹ The checkpoint at Portland was operated by Delta which had contracted with Globe; Aviation Operations Litigation Support, TSA, "Table of Screening Checkpoints, Contracted Screening Companies, and Responsible Air Carriers for September 11th Flights." [SSI]

⁶⁰⁰ For Portland, ME checkpoint, see Site visit to Portland International Jetport, Portland, Me (Aug. 18, 2003). For Boston checkpoints, see Logan site visit and briefing (Aug. 15, 2003). For Newark checkpoint see FAA Office of Civil Aviation Security Operations, "Assessment and Testing Data for BOS, EWR, and IAD." [SSI]

⁶⁰¹ Metropolitan Washington Airports Authority, videotape of Main Terminal checkpoints, September 11, 2001 [SSI]

⁶⁰² Located in Terminal B.

⁶⁰³ The results of FAA testing of x-ray and metal detection screening at the B4 checkpoint were similar to the result of B5 for all tests conducted since October 1, 2000, FAA report, "Assessment and Testing Data for BOS, EWR, and IAD." See also, FAA report [SSI] The FAA report produced by the Boston Civil Aviation Security Field Office (CASFO) stated: "Soon after hijacking, CASFO personnel tested the screening equipment at the screenign checkpoints at issue: At screening checkpoints B-4 and B-5, the X-rays units passed a [REDACTED] walk-through metal detectors at both checkpoints [REDACTED]" See FAA report of Boston CASFO, Sept. 12, 2001.

⁶⁰⁴ No FAA "Red Teams" Special Assessments were done at Logan security checkpoints in the two years prior to 9/11.

⁶⁰⁵ FAA Office of Civil Aviation Security Operations, "Assessment and Testing Data for BOS, EWR, and IAD." [SSI]

⁶⁰⁶ Logan Briefing and Site Visit, August 15, 2003. [SSI]

⁶⁰⁷ No FAA "Red Team" Special Assessments were done at Logan security checkpoints over the two years prior to 9/11/01.

⁶⁰⁸ Federal Aviation Administration, Office of Civil Aviation Security Operations, "Assessment and Testing Data for BOS, EWR, and IAD: Boston-Logan International Airport (BOS)," September 21, 2001 [SSI]

⁶⁰⁹ FBI/FAA Joint Vulnerability Assessment, "Airport Security Analysis: BOS," 1999 [SECRET]

⁶¹⁰ No FAA "Red Team" Special Assessments were done at Newark security checkpoints in the two years prior to 9/11.

⁶¹¹ Federal Aviation Administration, Office of Civil Aviation Security Operations, "Assessment and Testing Data for BOS, EWR, and IAD: Newark International Airport (EWR)," September 21, 2001 [SSI]

⁶¹² FBI/FAA Joint Vulnerability Assessment, "Airport Security Analysis: EWR," 1999

⁶¹³ Metropolitan Washington Airports Authority, videotape of Main Terminal checkpoints, September 11, 2001 [SSI]

⁶¹⁴ [REDACTED]

the period Federal Aviation Administration, Office of Civil Aviation Security Operations, "Assessment and Testing Data for BOS, EWR, and IAD: Washington-Dulles International Airport (IAD)," September 21, 2001 [SSI]

⁶¹⁵ FBI/FAA Joint Vulnerability Assessment, "Airport Security Analysis: IAD," 1998-1999. [SECRET]

⁶¹⁶ A post-9/11 assessment performed by the Dulles Airport Security Office found that 269 checkpoint screeners employed by Argenbright at Dulles as of 9/11. [REDACTED]

⁶¹⁷ CTT Consulting, "Comprehensive Airport Security Study, Washington Dulles International Airport: Survey and Assessment Report," July 23, 2001, pp. 49-50. Federal Aviation Administration, Office of Civil Aviation Security Operations, "Assessment and Testing Data for BOS, EWR, and IAD: Washington-Dulles International Airport (IAD)," September 21, 2001 [SSI]

⁶¹⁸ FAA "Special Activities Staff, ACS-50, Security Checkpoint Screening." (SSI)

⁶¹⁹ [SECRET] Intelligence report interrogation of Ramzi Binalshibh, Oct. 1, 2002; FAA Intelligence Case File 2001-216

⁶²⁰ Tim J. interview (Apr. 12, 2004)

⁶²¹ Tim J. interview (Apr. 12, 2004). For checkpoints that possessed explosive trace detection (ETD) equipment, the bags were to be swiped for explosives. In the absence of such equipment screeners were required to conduct physical searches of carry-on luggage.

⁶²² Lynne O. interview (Oct. 3, 2003)

⁶²³ Mike Canavan interview (Nov. 4, 2003)

⁶²⁴ Jane Garvey interview, (Oct. 21, 2003)

⁶²⁵ Mr. T. interview, (June 3, 2004)

⁶²⁶ Letter from Carol Hallett, President and Chief Executive Officer of the Air Transport Association, to General John Michael Loh (Retired) of the Gore Commission, August 23, 1996.

⁶²⁷ Cathal Flynn testimony, Jan. 27, 2004. Admiral Flynn told the Commission: "Checkpoint screening was the primary measure to prevent hijackings of aircraft. The Federal Air Marshal program was a supplemental measure. Because the threat of hijackings was greater there, nearly all FAM missions were on international routes. The FAM program became controversial within the federal government in late 1993 and early 1994. The Department of Defense and the FBI sought to have it terminated because in their view there was unacceptable risk, in the event of a hijacking, of their hostage rescue efforts being dangerously complicated by the presence of armed FAM's in the aircraft. Blue on Blue friendly fire incidents were central to their concerns. The FAA did not agree there was appreciable risk, and insisted on continuing the program for deterrence. The National Security Council staff resolved the matter in the FAA's favor.

Thereafter, the FAA's efforts to maintain a small, high-quality FAM corps continued, notably by relocating its base to the technical center in Atlantic City where it had ready access to greatly improved training facilities."

⁶²⁸ [SSI] Section [REDACTED] of the ACSSP set forth air carrier responsibilities for security and anti-hijacking training for flight crews. The program included the following requirements: [REDACTED] initial security training for all crew members on aircraft [REDACTED]

[REDACTED] recurrent training [REDACTED]

[REDACTED] An outline of "Inflight Hijacking Tactics" for both the cockpit and cabin crews, which, among other things advised "do not try to overpower hijacker(s), do not negotiate with hijackers, try to land the aircraft, relay specified information to ground about hijackers, and try delaying tactics." See FAA report, Air Carrier Standard Security Program, Change 56, 5/1/2000 [SSI]

⁶²⁹ Air carrier responsibilities for security and anti-hijacking training in the Common Strategy for flight crews were set forth in the Air Carrier Standard Security Program. In addition to specifying the

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requirements of security training, it provided an outline of in-flight hijacking tactics for both the cockpit and cabin crews. FAA report, Air Carrier Standard Security Program, Appendix X [REDACTED] May 2001, pp. 7-8. [SSI]

⁶²⁹ Testimony of Jane Garvey, former FAA Administrator, to National Commission on Terrorist Attacks Upon the United States, at Hearing on Civil Aviation Security, May 22, 2003

⁶³⁰ Mike M. interview (Sept. 15, 2003); In testimony before the Commission the former Inspector General at the Department of Transportation said that according to her research of the 823 hijacking that had occurred worldwide since 1970, crew and passengers fought back and were able to overcome the hijackers in 115 cases. See Mary Schiavo testimony, May 23, 2003.

⁶³¹ John Nance, "Denial of Access: Hardening our Defenses Against Terrorist Manipulation of Commercial Aircraft," CCH Inc. Issues in Aviation Law and Policy, September 28, 2001, p. 1.

⁶³² Prior to 9-11 cockpit doors on commercial aircraft were not reinforced, even though the FAA was increasingly concerned with the growing incidence of air rage that had included cases of cockpit intrusion, including two fatalities in 2000. See Bryon Okada, "Air Rage Prompts Call for Safety Measures," *Ft. Worth Star-Telegram*, January 10, 2001. Former FAA Administrator Garvey told the Commission that after Operation Desert Storm she discussed the issue of reinforcing cockpit doors with the Israelis who had installed such fortifications on their commercial aircraft because of the terrorist threat. Such an initiative was also considered as one way to combat "air rage" that had resulted in incident of cockpit intrusion and threats or attempt to use violence against aircrew. The Administrator said that while she struggled with this issue, FAA Flight Standards believed that hardened doors could create a safety hazard to the airframe and avionics in the event of decompression, and could also make egress from the cockpit in the event of an emergency more difficult. See Jane Garvey interview Oct. 21, 2003; and Monte Belger interview (Nov. 24, 2003). Another FAA witness testified that hardening the door would have increased weight to the aircraft, thereby increasing fuel costs to operate the flight, a consequence that the industry opposed. See Mike Canavan testimony, May 23, 2003; 14 CFR § 121.587, "Closing and locking of flight crew compartment door."

⁶³³ The Commission received testimony from an American Airlines employee that [REDACTED]

[REDACTED]. See Michael W. interview (Jan. 25, 2004)

⁶³⁴ Timothy A. interview (Jan. 8, 2004)

⁶³⁵ Ft. Worth Star-Telegram, January 10, 2001, p. 1.

⁶³⁶ UAL instructional video, "Hijacking Cope and Survive," 1984.

⁶³⁷ Mr. M. interview (Sept. 15, 2003). The Commission learned that FAA was seeking to update the Common Strategy in the summer of 2001. At an FAA Aviation Security Advisory Committee held on June 21, 2001 in Washington DC, Morse informed the panel that "our review of the principles involve suggest that for the most part the doctrine that's been used in the past is sound; we'll be continuing it." Morse told the Commission that he intended to raise the possibility of suicide hijacking in the new strategy, but the update had not yet been completed.

⁶³⁸ UAL instructional video, "Hijacking Cope and Survive," 1984

⁶³⁹ Jane Garvey testimony, May 22, 2003.

⁶⁴⁰ Final Report of the White House Commission on Aviation Safety and Security, February 12, 1997, p. 20.

⁶⁴¹ National Research Council, *Making the Nation Safer: The Role of Science and Technology in Countering Terrorism* (Washington, DC: The National Academies Press, 2002).

⁶⁴² Ed S. interview (Nov. 21, 2003)

⁶⁴³ FAA report, system design and analysis.

⁶⁴⁴ Lynne O. interview (Oct. 3, 2003)

⁶⁴⁵ Testimony of Kenneth Mead, DOT IG, to National Commission on Terrorist Attacks Upon the United States at Hearing on Civil Aviation Security, May 22, 2003.

⁶⁴⁶ Monte Belger interview (Nov. 24, 2003); Mike Canavan interview (Nov. 4, 2003); and Jane Garvey interview (Oct. 21, 2003).

⁶⁴⁷ Jane Garvey interview (Oct. 21, 2003)

⁶⁴⁸ Monte Belger interview (Nov. 24, 2003)

⁶⁴⁹ Carol H. interview (Oct. 27, 2003)

⁶⁵⁰ For poll on safety of flying vs. driving see, ABC News Poll by TNS Intersearch, November 1999; For poll on airline safety vs. security, Fox News/Opinion Dynamics Poll, Nov. 3-4, 1999.

⁶⁵¹ Brian Jenkins, "Aviation Security in the United States," in Wilkinson and Jenkins, eds., *Aviation Terrorism and Security* (London and Portland, OR: Frank Cass Publishers, 1999), p. 104.